

# Minnesota Medicine

Journal of the Minnesota State Medical Association

Vol. I

SEPTEMBER, 1918

No. 9

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# Minnesota Medicine

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## ORIGINAL ARTICLES

### CHANGES AHEAD.\*

M. L. BURTON,  
President of the University of Minnesota.  
Minneapolis, Minn.

Mr. President and Members of the Southern Minnesota Medical Association:

I believe it was Cicero who once said that the first duty of a public speaker is to place his audience in a benevolent frame of mind. Don't be disturbed. I am not going to propose that we take up a collection. (Laughter).

Before I begin to speak on "Changes Ahead," I would like to say this: From my point of view, the only motive which can ever control the decision of any man in the use he makes of his time, in the motive which concerns himself, his personal interest, is that it is the supreme duty of every man to look at himself through his abilities, his capacities, his powers, and do what needs to be done in such a crisis as that which now confronts our nation. I have absolutely no sympathy with, or admiration for, individuals, parties, or institutions that in these days of stress would seek to make their interests paramount to those of the federal government. (Applause).

I believe that you and I are living in the most stupendous moment of all history. I believe the old order has passed away and a new order is in the making. There is absolutely no place for the present methods or policies of the imperial German government. (Applause). In other words, changes of all kinds are ahead of us regardless of what has transpired recently

on the Italian front. We cannot live for a single hour without being conscious of the changes that have come upon us.

I am not a prophet or the son of a prophet. I am not particularly concerned about whether what I say ever comes to pass or not. I do not mean to be encouraging or threatening, optimistic or pessimistic; but I do propose to get before you, if possible, one very clear proposition, namely, that we are in the midst of overwhelming changes. Whether we like it or not, whether we are part of it or not, whether we approve of it or not, the fact remains that the old civilization is being torn into shreds, that the old order is rapidly passing away, and that a new order is in the making. The question is precisely what part you and I are going to play in the making of this new order.

Please observe that the issue I am trying to get into our minds is this: That just as sure as fate, the things which made our civilization in recent decades are passing away and totally new and unexpected and unanticipated and uncomprehended situations are going to arise. We are in the midst of forces which we neither understand nor can comprehend. The whole world is in a state of flux, and no previous generation of men and women has ever faced the problems that you and I must face in the decade just ahead.

I want to discuss for just a moment the most intimate details of our life, and to have you see that if you and I this afternoon are loyal and patriotic American citizens, we must almost instantaneously, over night, make changes in our methods of living. Take the question of food, something that relates itself very closely to the things that you and I do every day of our life. You and I are not loyal unless we

\*Address delivered without notes before the Southern Minnesota Medical Association, Winona, Minn., June 24, 1918.

have recognized at once our responsibility to our government and to our associates in that we should eat less wheat, less meat, less fats, and less sugar. If you and I are eating the same breakfast foods and as much white bread as we ate before our entry into the war, then we are not making the response we ought to in the midst of the present crisis. Likewise, there ought to be a change in another matter of our daily living, namely, our clothing. I am not talking against the tailors, or the clothing shops or the millinery shops, but I do believe that in these war times it becomes our duty to recognize that possibly we ought not to spend so much money, and certainly not so much time, on the question of clothes, as many people in our generation have been spending in recent years. I believe that all of the things which come closest to us and affect in the most intimate way our daily living ought to become objects of very careful consideration. More and more in every community there are homes from which the husband or the son have gone forth to war, and it is not going to be possible for those families to maintain the same standard of living as they maintained in the past. It is for you and me to make sure that we create a genuine social approbation of those people. You and I ought to be able to say to them, "We respect you, yes, we congratulate you, for the contribution that you have made to your country in this hour of crisis." Instead of gathering together somewhere and gossiping about how Mrs. Smith cannot live and dress just the way she used to, we ought to make it clear to her that in our hearts we have a profound regard for what she is doing, for the suffering and the sacrifices through which she is going, in order that there may be a better world for us to enjoy.

Men, you and I are less than human if we permit for one instant any of these persons to suffer because they cannot live just as they used to live. (Applause). So, I say, there must be a change in our food, in our clothing, in our standards of living, and also in that thing which concerns all of us—our work.

Now and then I hear a man say, "My business is not what it was before the war began." Of course, it is not. It is not the same with

any of us. My work is not what it was before the war began. Every day brings to us new problems and situations, because we are at war. All of our work must inevitably change, for we are not living in times of peace but in times of war. And the same thing applies to recreation. It is a significant fact that the President of the United States has not seen fit to take a vacation since our entry into the war. You and I have no right to think so much of rest as we used to think.

Again, every atom of our strength, physical and nervous, must be given to the end that the United States and her Allies may win this war. (Applause). Eating, drinking, living, working, playing—these are the things that make up our daily life.

But there is one other thing that concerns all of us more intimately than any of these. I do not care what your attitude is to it, I am not particularly concerned about how you define it; I am not concerned as to what may be your thought about the external manifestations of it in our common life, or the organization which represents it; you may even scoff at it if you please, but it is only because we do not understand it or the organizations which represent it. I have reference to religion. I believe that this war is going to make more change in religion than in almost any other phase of our common life. Are you a father and did you march beside your boy to the station the day he took the train to go away to the camp? If you did, or if you saw some other man that you loved do the same thing, how did you feel? And didn't there go up out of your heart that day some silent, unformulated hope that that boy might do his duty, that he might have the strength to resist the awful temptations which gather about the soldier, that he might be faithful and loyal to the United States flag, and that he might come back when the war is over? (Applause). Yes. And when he goes across the ocean and enters the trenches, and then when that crisis comes and he goes out over the top in No Man's Land, and then possibly when he slips into the Great Beyond. I am a little inclined to think that that realm which for a generation has seemed less real than before, will again be more vital and of more significance in American thinking and



American living. When you think of all the stern realities that we are facing, when you consider the sacrifices and the suffering and the death which are to come to us as a nation, I believe that unselfishness and righteousness and justice and peace and goodness will be more real in American living than they are today. (Applause). Yes, in some way I believe that religion, too, is going to change, or, rather, that our attitude to religion is going to change, and that our appreciation of it is going to be less formal and more vital because of the war.

Now, if that be true, let us pass on to the realm which is perhaps more significant, if that is possible, namely, the realm of business. I was in England all of the summer of 1914, and I observed in the papers there that they were endeavoring to develop loyalty to the slogan "business as usual." I believe that if we are going to be successful in this war, it is absolutely essential that the financial and economic and commercial life of our country should be just as normal and just as strong as it is possible for us to keep it. But the loyal, discriminating American citizen today is not harping on the slogan "business as usual," because it cannot be defended. Why, men, we are living in war time and not in times of peace, and many things which we can do and tolerate and enjoy in times of peace cannot be done or tolerated or enjoyed in times of war. And I think if there is any one thing in American life today that ought to give us serious concern it is this, that there is the sullen appeal to class discrimination and class distinctions, which after all, are diametrically opposed to the very thing which we must develop in our country if we are going to win this war in the way we intend to. For we are neither business men, nor merchants, nor bankers, nor professional men, nor commercial club men, nor farmers, nor laboring men—we are all Americans. (Applause). And so it seems to me that it becomes the duty of the business man to understand, if he has a forward looking mind, that his work and the organization of his business must actually be related to the war conditions in which we find ourselves.

I am of the impression that one tremendous change in business is going to come in connection with luxuries. Less money will be spent

on luxuries if you and I are the citizens we ought to be. But, on the other hand, it means that more money must be spent for necessities. When we think of what the United States government has upon its hands in the organization and the development of a great navy and of a great military force, then do we not see that there must be a great expansion of the business of the country. Think of the demand for food, for clothing, for munitions, for repair materials, for motors, and for all of the accessories that are absolutely essential to the successful maintenance of a great military establishment. Do we not see that business must expand, that more money must be spent, and that all this money our Allies are borrowing in this country must be expended here for those necessities which makes possible the carrying on of the war?

But I want to come to another point which I conceive to be a fundamental principle in the business world and which I feel our commercial organizations must help to develop. I think we have been altogether too satisfied with producing large quantities of raw materials and have not been sufficiently concerned with the production of the finished article. I am told that the tonnage that goes out of the harbor at Duluth is greater than that which goes out of any other harbor except New York. But the difference is this: What they send out of Duluth is huge quantities of raw material. Let us be proud of the things we can do; let us utilize all the resources and potentialities of our great state, but there are other possibilities which we must not overlook. Take an illustration, to drive home the principle I am trying to enunciate. I think I can find one which will not offend anyone in the middle West. Let us go to New England for an example. In the state of Connecticut there is a city by the name of Waterbury. I suppose you have carried a Waterbury watch or joked about it. As you go into Waterbury on the railroad train you see a great big sign which says, "Waterbury has something on everybody." (Laughter). I suppose you know, too, that Waterbury is the center of brass. (Laughter). I speak materially, not spiritually. Perhaps I should say it is the center of the brass industry. There is where the Ingersoll watch is

made; and you remember the signs along the railroad lines that read, "The watch that made the dollar famous." As you read that little sign at the top you learn that they have sold about 45,000,000 of those Ingersoll watches. The point I am trying to make is this, that Waterbury has something on everybody when you think of those millions of watches. Now, what was true in Waterbury in 1914 when this war began? The truth is the Waterbury Clock Company was not making its watch crystals. It was importing them from Switzerland; but when the war began they found it absolutely necessary to equip their own factory for the manufacture of watch crystals, with the result that today they are making all of them. The American business man, if he is shrewd, will see to it that we not only produce large quantities of raw materials, but also that we produce finished articles in our country. That applies to the central West just as much as it applies to New England or the far West. I believe that it is a part of our duty to the world to see to it that the full scope of American inventive genius is brought to bear not only upon the production of raw materials but also upon the making of the finished product. It seems to me that there are almost unlimited possibilities for the development and expansion of business just because of our war conditions. It is true, business is expanding. We are experiencing tremendous shiftings in the business, financial and economic world. The patriotic, loyal American is not the one who bemoans the fact that business is not precisely what it was before the war, but he is the one who is looking ahead and trying to see what business is going to be ten years from now. There will be changes in the most intimate concerns of our daily life and changes in business which must affect every person here and every person in the communities over which you preside.

If there are to be changes in business, we recognize at a glance that there must be far more serious changes in government. You are all more or less familiar with the problems of government. I suppose that there is no field in which we need greater scholars at the present moment and persons who have not only theoretical knowledge but practical experience than in the work of democracy. I think all of

us must recognize that one tremendous change which has already come in government in America is the change towards the centralization of enormous powers in the federal government. Whether we like it or not, the fact remains that there is not a person present who would have ventured to prophesy the things which have actually come to pass in the way of the development of our federal government. Think of the fact that there is not a man in existence in whose hands has been lodged so much power as is lodged at the present moment in the hands of President Wilson. (Applause). Could you have dreamed, even a year ago, of the federal government fixing the price of wheat for the entire country, and the price of coal, and the regulation of food? Think of how we have again and again put larger powers into the federal government. What does this mean? It means that you and I, as representative American citizens, must be prepared in the years just ahead to decide whether or not this process shall go forward or go backward. We shall be called upon to decide whether or not it is right that the federal government should hold all of these powers, or whether we should go back to those days of rampant individualism before the war, when every person did just as he pleased.

When we speak of changes that are ahead, the most serious question which you and I must meet is, can the democratic American government be made efficient? That is the question that has been raised about democratic government from the days of Plato to the present. You and I know that it is a little difficult for us at times to assert, without any qualifications, that democracy can be made efficient. I think it is well for us to observe that when you and I get together in a family circle such as this, where we can discuss things with frankness, that under such circumstances it is well for us to speak with perfect candor, and understand there is some basis for our foreign critics in passing comments upon the United States and the efficiency of our government. I am not going to weary you with any long portrayal of the shortcomings and limitations and failures of American government. When one thinks of the scandal of American politics, of the corruption, the bribery, the intrigue, and

the duplicity, then it is not possible for him to consider with great composure some of the things that are said by the keen, discriminating persons who try to find out whether we are wise, economical, and efficient in the administration of our affairs. Think of the Philadelphia gas ring, think of the Tweed ring, think of New York City at the present moment. Think of the magnificently beautiful capitol of the great Empire State of New York, costing hundreds of thousands of dollars, with its magnificently carved mahogany ceiling, until one day a janitor accidentally slipped off a rafter and his feet went through brown paper.

You and I are perfectly aware of the fact that these are only superficial observations and comments upon politics and statesmanship and municipal administration in America. You and I must admit, candidly and frankly, that all of these things can be said with remarkable accuracy about our government. But you and I know something that most of our foreign critics never sense. They always interpret us in the terms of our successful and superficial materialism, and they do not come to see that back of all of these external things there is here the finest spirit of idealism that permeates any nation of the world today. (Applause).

Think of the fact that we have brought 60 per cent. of the 400,000 government employees under civil service. I grant that the other 40 per cent. include the most important offices, but this task is simply not completed. Think of how by various methods the American people have been working gradually, quietly, incessantly, and persistently towards better and more practical methods of legislation. In some places they have had state constitutional conventions; in other places, they have introduced the initiative and referendum. When you think of the recall and the primary and all of these other methods, what do they mean? Simply this: that the American people are absolutely determined that this American democracy shall be made efficient. (Applause). The significant thing about any individual or group or organization is not what it is, but what it is becoming; not so much what it may have been in the past as what it is going to be in the future, for after all one of the fundamental tenets of my thought is this, that only that

exists which ought to be. You and I know that American government is not what the carping critic says it is, but we know that it is what you and I dream in our best moments it shall be when we have brought to pass the things for which we are striving, that is what American government really is. It is just what you and I determine it shall be. (Applause).

To my mind the supreme evidence of the growing efficiency in this country is to be seen in one of those magnificent accomplishments of President Wilson. I believe when the historian of the future writes the history of President Wilson's administrations, he will recognize that one of his greatest elements of strength was found in the fact that so quickly and so speedily he realized that since August, 1914, the old methods of military tactics had been transformed and that the volunteer system was doomed. (Applause). He recognized that in unmistakable tones we must proclaim to the Kaiser of the imperial government that from nine to ten millions of the flower of American youth stand ready to prove to the Kaiser that democratic government, a government of the people, for the people, and by the people, shall not perish from the earth. (Loud applause). That is the efficiency which we are manifesting to the world now. We are saying to the world, "Yes, we will show you that democracy can be successful and efficient." I believe, beyond the shadow of a doubt, that we are going to win this war. I believe that one way we are going to win it is just through this tremendous change that has come over us, this development of a greater efficiency in the organization of our government. (Applause). Those are the changes which will come perhaps without much effort on our part now.

But there is another change which we must meet, and it is the thing which gives me pause and serious concern. Somehow we must get to the 100,000,000 of our people a new conception of what democracy really is. You and I have imagined in the past that democracy is a form of government which is responsible to the people. That is true. Oh, if Germany had only had such a government! But with all of our thought of the blessings and privileges and opportunities of democratic government we have interpreted freedom largely as license, and we

have failed to see what in essence a democratic government really is. We must see that there are two sides to this shield. We must recognize on the one hand that the government which we make is responsible to us. But more and more, particularly in these times, we must understand that the people are responsible to the government.

How are we going to get that? How are we going to have the people see that once they have constituted government, then it is their duty to be loyal to that authority and to place at its disposal absolutely everything they have? For in this time of war our duty is not simply the making of a great army, but it is recognizing clearly the principle of the selective draft, that every man, woman and child within the confines of the United States of America must deliver his full strength for the government. It is a question of putting an entire nation of one hundred million people under arms. Some how, some way, you and I, as those who are responsible for communities, must see to it that our people get a deepened consciousness of their individual responsibility. How are we going to secure such a result? One way we are going to get it is to have them see the clearness, the seriousness, and the finality of the issue in which we are now engaged.

Men and women, I beg of you not to think I am losing my temper. I am not. What I am going to say I shall say with perfect deliberation. I do not mean to speak with disrespect for any person. I do not mean to say a word which will create false motives or unreal springs of action. I do not mean to do anything which would generate hate or revenge or vindictiveness. But I do mean to say something which will stir you to your very depths, which will burn into your souls, the necessity of making the American people understand that there is only one side that can triumph in this conflict. I think that one way we are going to get this change that we want in our American government, this deepened sense of individual responsibility is by having the people see the ultimate nature of the issue in which we are engaged. It is absolutely final. We are witnessing the death grapple of two of the most gigantic ideas that have ever animated conflicting nations. Dr. Lyman Abbott, a very

dear friend of mine, is the editor of "The Outlook." He has been a frequent guest at my home. He is not given to swearing or to the use of profanity. He is a man whose very presence is a benediction and who has a reverence for everything that is fine and beautiful. But I wonder if you read his editorial in the August (1917) number of "The Outlook." In that editorial he said that the best speech that had been made for the Kaiser was made by an unknown orator at a peace meeting in New York. I remember that speech word for word. This man exclaimed, "To hell with America!" That is precisely the issue. You say, "What do you mean?" Frankly and brutally, I mean this: You know and I know that in the summer of 1914, when the Kaiser practically dictated the note to Austria that went to Serbia, the Kaiser simply said to all the civilized nations, "To hell with arbitration! To hell with the appeal to reason for the settlement of international disputes!" When the Kaiser sent his armies through Belgium what did he do? Why, his own chancellor fell to a depth from which he had to reach up to touch bottom! He described a treaty as "a scrap of paper." What did the Kaiser say? He said, "To hell with treaties,"—the most sacred and solemn engagements of civilized peoples. And when he sent out his submarines and sank the "Falaba" and the "Gulflight" and the "Lusitania,"—think of the little children and the women—what did he say? He said, "To hell with international law"—among the best fruits of centuries of civilization. When in the wake of his armies maidens and matrons were raped and ravaged, and altars were desecrated, and homes were violated, and everything that you and I hold sacred and precious and inviolate was trampled in the mud, what did he say? He said, "To hell with America!"

On the one side is ruthlessness and frightfulness and barbarism and militarism and autocracy, and on the other side is good will and brotherhood and freedom and equality and education and opportunity and democracy. Is there any question as to where we ought to stand? Are there two sides to this issue? Sometimes a man has the stupidity to say to me that he is not pro-German, but that he is against the war. Before he can get his mouth



shut I say to him, "You are pro-German, for he that is not for us is against us."

If ever there was any truth in the sayings of our Master there is truth in this one, "Ye cannot serve God and mammon." If there was ever a holy war, this is a holy war.

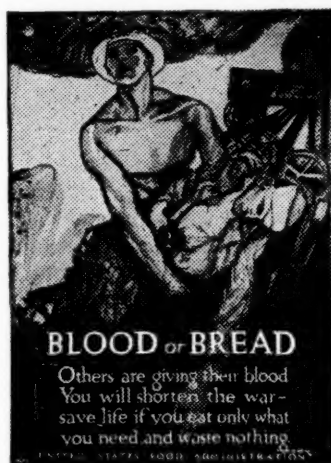
I believe that war is the most infernal, diabolical, insane, damnable method that was ever devised for the settlement of international disputes, but I believe this war offers to this generation the greatest spiritual opportunities that any nation has ever had extended to it. It is the death grapple. This is a fight to the finish. When I think of Count von Bernstorff and of the things he did while enjoying the hospitality of a friendly nation, and von Luxburg in Argentine who sent that telegram saying sink them "without a trace," and von Zimmerman trying to occasion war among Mexico, Japan, and the United States, and deliberately planning the dismemberment of America, I wonder how we endured so patiently the egregious conceit and the utterly dastardly conduct of Germany's officials. How long can you and I as Americans be willing to tolerate such things as these in the world? Germany has been a menace to civilization, and she has made for enmity and friction throughout the world. We have tolerated it as long as we could. I believe with all my soul that there is no possibility of making any peace with the present German government. Only when we can deal with responsible parties representing the German people is there any possibility of concluding peace.

So I say that there must come a tremendous change in America, in our government, dependent upon a deepening sense of responsibility, arising out of the fact that you and I see with clearness the seriousness and the finality of the war in which we are engaged.

Do you imagine that anyone can possibly misinterpret our motives in this war? I challenge anyone to show conclusively that America's motives are false. Sometimes they say it is a dollar war; sometimes they say it is a war for the profiteers, but it will take more evidence than has been submitted up to the present time to convince the country of the truth of that accusation, because I believe no people ever went into a struggle with higher motives than

those with which we have gone into this war. (Applause.)

I might speak about the changes that are necessary in education for the realization of this great program. I might have you see that in American democracy, yes, in any democracy, its ultimate development depends upon the intelligence and the character of its citizenship. I might discuss with you what education must do if we are to rise to the full meaning of these large problems. We must save more of the time of our boys and girls. Education must be developed so that more and more it fits our boys and girls for American citizenship. I might have you see how our education must be developed and changed so that it may meet the conditions of the new world order, but every one of us can see that changes in all phases of our life have come and are coming—changes so overwhelming, so stupendous, so kaleidoscopic, that it is impossible to anticipate them, and that, as a consequence, probably the highest duty we have to perform as American citizens is to prepare our hearts and minds for the changes that are bound to come, in order that thereby we may not only save ourselves but that we may come to the full fruition of American life in being of service to all mankind. (Loud applause.)



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# DIFFERENTIAL DIAGNOSIS AND MODERN TREATMENT OF IDIOPATHIC PERNICIOUS ANAEMIA.\*

J. P. SCHNEIDER, M. D.,

Assistant Professor of Medicine, University of Minnesota Medical School.

Minneapolis, Minn.

In a period of rapid transition it becomes increasingly difficult to classify in a satisfactory manner pathologic states formerly grouped under primary anaemias, idiopathic and otherwise. For just in proportion as we succeed in getting away from the blood-cell morphology view of Ehrlich and uncover causal pathology in certain organs, just in that degree must we ablate a member of the idiopathic group and place it in an etiological one.

Barker, in his recent monograph, clearly recognizes the present difficulty and partly circumvents it by dividing the anaemias into: 1, anaemias due to hemorrhage or increased blood destruction, and 2, anaemias due to defective or decreased blood formation. That such a division is not entirely practical, is evident at once when we remember that Addison-Biermer anaemia is a later stage of a primary blood destroying process—the blood picture, however, not presenting its true face until the conditions obtaining in the second classification supervene—namely, hypohematopoiesis. The difficulty lies inherent in the fact that the blood is not a tissue, but a secretion.

Harking back to Barker's classification, we find under 1, the subdivision "Anaemias due to hemorrhage." With this group we have no concern—and yet so far as the blood and even clinical picture is concerned, during the past year I have seen four such regarded for many months by competent men as primary pernicious; they were all carcinoma of the stomach, producing chronic post-hemorrhagic anaemia. The second subdivision, "Anaemias due to increased blood destruction" embraces the following:

- (a) Hemolytic anaemias of unknown etiology.

1. Acute form, with leukocytosis.
2. Chronic type (Addison-Biermer type).

- (b) Diboethriocephalus anaemia.
- (c) Hemolytic anaemias occurring in lues, carcinoma and in the puerperium.
- (d) Chronic hemolytic anaemias—nitrobenzol phenylhydrazine, potassium chlorate.
- (e) Anaemia pseudoleukemia infantum.
- (f) Acquired and familial hemolytic jaundice.

Under II, we find subdivisions:

1. Chlorosis.
2. Anaemias accompanying tumor or sclerosis of bone-marrow (the myelopathic anaemias).
3. Anaemias accompanying hypoplasia of bone-marrow.
- (a) In state of inanition and cachexia.
- (b) In conditions of unknown origin (aplastic or aregeneratory anaemias).

For the present discussion we will dismiss chlorosis with the remark that there is, in all human probability, no such condition. To be sure, there is a blood-state of chlorotic type but it is not an entity—purely secondary to chronic infection, reacting upon the glands of internal secretion. Clinically, it could not overshadow the properly unearthed underlying pathology—frequently glandular type of phthisis. The other members of this group are to be recognized by the concomitant evident disease—and in the blood, absence more or less completely of the characteristics of accelerated blood regeneration—erythroblasts, polychromia, anisocytosis, and the presence of a leucopenia.

Of the members of the group of anaemias due to increased blood destruction, there is no debatable ground concerning that due to diboethriocephalus, etiologically, clinically and therapeutically. Similarly in the severe anaemias accompanying fulminating trepanema infection, that of advanced carcinoma intoxication, and of the septicemias of the puerperium, there is every reason, clinically, to recognize their true source and proper treatment.

With infantile anaemia I am not acquainted. The chemical intoxications are well recognized. Of the group there remain, for our consideration, pernicious and hemolytic jaundice, by

\*Read before the Red River Valley Medical Society, Crookston, Minn., March 28, 1918.

far the most interesting types, in view of the intensive study given these types by workers in many lands.

Congenital hemolytic icterus, as its name implies, is distinctly a family disease; presents frequently so mild a symptomatology as to deserve rather the appellation of "affliction." There is present a low grade of exquisitely chronic, variable icterus, which may be accompanied by itching, quite as in biliary stasis, a moderate anaemia with a tendency to microcytosis, a markedly reduced resistance of these cells to hypotonic salt solution, a constant urobilinuria, with a large relatively hard spleen. These patients come frequently for relief of the dragging pain in the left hypochondrium; less often for a correction of the cosmetic disturbance. There is a subdivision of this type of anaemia—acquired hemolytic icterus due to peritonitis producing a thrombosis of the splenic vein where all of the above features are present with the added one of formation of oesophageal varices via the left diaphragm (hematemesis may occur and a variable secondary anaemia appear in consequence). I have had such a case under observation now for several years. From Gaucher's type of splenomegaly it is to be clinically distinguished by the absence of definite brownish skin discoloration, and the absence of the lessened blood resistance test and of microcytosis.

While such is the pattern type of case, as so frequently occurs in nature, there are many border-line cases—and I have seen one such in which there were many features of the pernicious anaemia complex. From the therapeutic standpoint, the great interest for us resides in the fact that splenectomy is positively curative and that in a remarkably short space of time. To Banti, probably, belongs the credit of stimulating this therapeutic endeavor; to Eppinger the credit of establishing the objective evidence of a cessation of blood destruction—namely, by his first quantitative study of the stool blood-derived pigment—urobilin. The removal of spleens permitted a proper microscopic study of splenic pathology. Owing to the exigencies of the war, I have still in my possession microphotographs of sections of splenic tissue from the spleens removed by Ranzi for Eppinger in 1913 and 1914. From a study of these spleens

and a similar, although quantitatively less urobilin output in pernicious anaemia, Eppinger suggested splenectomy for the latter, advancing the hypothesis of hypersplenism.

Therapeutically, therefore, there is none but a surgical treatment for hemolytic icterus. For idiopathic pernicious, there is a greater necessity for caution.

In the first place, the clinical picture of pernicious is, at the stage of our recognition of it, that predominatingly of an anaemia—and yet, thanks to Syllaba's studies in 1904, we have had our attention drawn to the frequency of the pre-anaemic icteric stage—and that definitely in cases at operation showing no gall-bladder involvement—cholelithiasis occurring in a certain percentage of cases. I have particularly watched for such suggestive past histories in these cases, and from my records, embracing now one hundred cases, find that sixty per cent give a definite history of repeated attacks of jaundice as long as seven years prior to the onset of a glossitis. In three instances there appeared to be an hereditary tendency, mother and daughter successively acquiring the disease. Of the one hundred patients, seventy were males showing an incidence not unlike that of lues. The youngest patient was sixteen, a female; the oldest, sixty-two. Ninety per cent occurred at the degeneration period of life, namely, fourth and fifth decades. And this, I would remind you, is in perfect accord with the nature of the pathological findings in the spleen, namely, obliterative endarteritis.

Seventy-three patients sought medical advice because of progressive weakness with, in variable degree, the symptoms of anaemia in general, namely, palpitation, dyspnoea, dizziness, ringing in the ears and pounding of the vessels of the neck. Fifteen complained of no particular weakness but bitterly of paresthesia of the hands or feet, or both. Of the remainder, eleven came primarily because of gastric distress with or without diarrheal attacks. One, a female aged sixty-two, was brought by her daughter with the statement that "mother spent many months, several times a year, for the past three years in bed"—was she lazy or ill? An advanced ataxic type of pernicious cord lesion, with a relatively good blood count

but with the usual morphological characteristics, was present.

The cord features were of such distribution in these cases and so out of complete harmony with the degree of anaemia, that I have rather confirmed my impression of three years ago, namely, that, directly, the cord lesion has nothing to do with the anaemia *per se*, and that the same noxus producing the vessel lesions in the spleen produces similar vessel lesions in the cord, the incidence of one or the other being explainable by the "Abnutzung" theory applied to the localization of lues. Accordingly, as the posterior or lateral column are involved, the picture will be that of the ataxic or spastic paraplegic.

The cord symptoms will ordinarily not improve once the stage of ataxia or paraplegia is arrived at, notwithstanding that the blood may go up wonderfully and the general health of the patient become normal. However, the paresthetic stage may disappear to reappear later. On one splenectomized patient, this perversion of sensation has not recurred to date, one and one-half years later.

Relative to glossitis, there are many cases in which this feature is not determined, owing to its being missed in the history, there frequently occurring an interval of several weeks to several months from its incidence to the approach to the acme of a crisis bringing the patient to the physician for relief from his weakness, etc. Each succeeding blood crisis may be so ushered in.

In one case of this series, there occurred a complaint in a shoemaker, of tenderness of the lower sternum. In the average case the tender-sternum sign is of considerable diagnostic value with reference, particularly, to the degree of taxation of the bone-marrow.

The treatment of the state of pernicious anaemia will, in view of the fact that we miss the stage of pure increased blood destruction and see the patient in various time and cycle periods of his disease, when there is both increased destruction and insufficient supply in variable degree, rest upon every possible help to determine where the major fault lies.

Is the infectious agent the spirochete, the streptococcus, or the tubercle bacillus still

operative? Then by all means, let us look for and root out primary foci.

Is the anaemia of moderate degree, the pigment production relatively low, the marrow not irritable and overtaxed, and the cord changes in the foreground? Then let us also clean the house of primary foci, and cautiously, as one would on a jaded horse over a last hard pull, use the arsenic whip. Fowler's solution, properly given, will do probably as well as cacodylate of soda or salvarsan, with less chance of damage.

Is the anaemia of rapidly increasing severity—for it must be remembered it is the *rapidity* of the blood fall that is of serious import to the patient as there is not then the possible readjustment occurring in the slowly progressing type, where it is frequently astounding how low a count an ambulant patient will prove to have and how few will be the collateral symptoms of anaemia *per se*? And is this rapidly downward trend approaching a hemoglobin of thirty (Sahli)? Then the treatment by transfusion from a suitable donor is in order. Aside from certain points of compatibility, a suitable donor is a matter of pure gamble, for it is not the quantity of blood transfused, so much as a certain bone-marrow stimulating substance present in the serum alone, which brings up the blood picture with gratifying immediate results (usually immediate only). While the early splenectomies were done on practically moribund patients, it would be deemed best with transfusion to bring the blood picture and general condition to a fair state, and then, if favorable, as measured by the length of disease, age of patient, size of spleen, degree of leucopenia and the H-H index,\* splenectomy will do temporarily, for three or six months, more than any other remedy we possess, and will promise a possible complete cure.

Is the anaemia of moderate degree—a severe leucopenia not present, the duodenal pigments of such value as to give a heavily plus H-H index, and perchance the spleen hard and markedly enlarged? Then, in the absence of cord changes, have a splenectomy done, and the patient will be given a chance to prove that the world does progress.

\*Schneider, J. P.: Further Quantitative Study of the Duodenal Blood-Derived Pigments, the Archives Int. Med., 1917, pp. 19, 156.

## A COMPARISON OF THE VARIOUS TUBERCULIN TESTS IN CHILDHOOD.\*

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The primary object in making a tuberculin test is to determine first of all whether the patient is actually suffering from tuberculosis and if so, whether the lesion is active and to what probable extent it has progressed.

It is now generally conceded that a very high percentage of children from infancy to puberty have experienced an infection with the tubercle bacillus. In this connection it should be clearly understood that an infection does not necessarily mean clinical tuberculosis. In fact an implantation of the tubercle bacilli may never give rise to clinical disease because an immunity may be developed sufficient to overcome the slighter degrees of infection. It is claimed that the large proportion of the tubercle infections of childhood are beneficial inasmuch as an acquired immunity is developed sufficient to confer protection on the child against adult tuberculosis. On the other hand, it is quite possible that the child is never afforded the opportunity to completely overcome the infection on account of constant exposure in unhygienic surroundings, or because the infection may be massive and repeated, the virus more virulent, or the resistance of the individual of a low degree.

It occurred to the writer that there are a large number of children living in close contact with open cases of tuberculosis who never acquire complete immunity and who under unfavorable conditions break down in later life. Granting this to be the end result, and there is already proof enough in existence to warrant us in accepting this position, it is very obvious that the campaign for the control and eventual eradication of tuberculosis should begin with the proper care of the children. In order to achieve any large amount of success in this field there should be close co-operation on the part of, first, the tuberculosis division of the local department of health; second, on the part of

every physician who makes a diagnosis of tuberculosis in the adult so the case can be reported and the exposed children put under observation; and thirdly, there should be some standardized test used to classify these children as to the extent and activity of their infections. Most important of all, those children who show by test an active infection should receive the benefit of institutional care, preferably in preventoria, until their condition is improved sufficiently to allow them to cope with any future infection. Preventoria are now established in several communities, as well as fresh air schools, and once the children are discovered to have active infections they should receive the benefits of these institutions.

As far as the writer knows no efforts have been made to single out those children who are in especial need of help. Can this be done by means of tuberculin tests? The writer thinks it can.

It would be impossible in a short paper on such a subject to go into the minutiae of the different tuberculin tests, such as the preparation of the different solutions used, their mode of application, time and appearance and nature of the various reactions elicited. The main object of this paper will be to mention a few of the better known tests in as far as they have any importance in pediatrics.

It might be appropriate before describing the tests to inquire into the nature of the tuberculin reaction, viz., what brings it about when the specific substance is brought in contact with the skin or introduced subcutaneously. Without going into a long dissertation on the biological and chemical process entering into the production of a reaction, it might be broadly stated that the reaction is a specific response on the part of an organism already sensitized to the excretions and secretions of the tubercle bacilli that have at some time gained entrance within the body of the host. The previous or present contact of the bacilli render all of the body cells sensitive to application of tuberculin by stimulating the formation of antibodies or lytic substances which combine with the tuberculin at the point of introduction resulting in inflammation locally in the case of a skin test. In other words the tuberculin is split up into two fractions, one of which is a toxic proteid,

\*Read before the Central States Pediatric Society, Twin Cities, December 10-11, 1917



and the other non-toxic. The toxic element is bound by the cells, and inflammation ensues. In the case of a subcutaneous injection there is not only the specific local inflammatory reaction but also a systemic one shown by fever, malaise, headache, body pains, etc. The tuberculous focus within the body has been stimulated and a large amount of toxin thrown into the circulation. This toxin is attacked by the lytic substances already present in the blood and tissues, and as these substances are not in sufficient amount to digest the tuberculin in its entirety, the poisonous fraction of split proteid left over gives rise to the above mentioned symptoms.

The following tests have been selected by the writer as the ones most practicable for use in testing children: The subcutaneous, the Von Pirquet, the Mantoux or intradermal, and last, the Ellis multiple papillary cutaneous.

A positive subcutaneous reaction requires that at least one degree of fever be registered over and above the normal after an injection of a specified amount. The temperature record should be taken for at least two or three days preceding the injection. In children the beginning dose should be small, at least not over one-tenth milligram. If there is no response to this amount within forty-eight hours one milligram is given, increasing the next two doses to three and five milligrams, respectively, in case there is no response, always, however, allowing an interval of forty-eight hours between doses.

In twenty exposed children recently tested by the writer eight reacted with one degree of fever to one milligram of tuberculin. Four of these were discharged cases from the Ramsey County Preventorium and had received tuberculin previously. Excluding these, there were four reactors out of twenty tests, or 25 per cent. If the 25 per cent of reactors in this small group should obtain in a group of say 500 similarly situated children it would point the way to the urgent need of some active measures in prophylaxis. Suffice it to say that a thoroughly conducted subcutaneous test in children under the proper precautions in the selection of cases and previous temperature control, together with the history of the case, is considered by the writer one of the most valuable, if not the most valuable, tuberculin test for the purpose of separating the active from the latent cases. The

subcutaneous test has been too much neglected by pediatricians perhaps on account of the time it involves and because of the unfounded fear of violent reactions. These are not to be feared in glandular cases and when they do occur, besides the information they afford, they are beneficial in a therapeutic sense.

#### The Von Pirquet Skin Test.

Since this test is the most familiar one to pediatricians and the one in most common use there is no need to sketch its history or describe its technique. It always gives a negative reaction in the acute exanthemata and mostly always in miliary tuberculosis, meningeal tuberculosis, tuberculous serous effusions in the pleural and abdominal cavities, and in moribund cases. A positive Von Pirquet simply implies that the child has at some time or another become infected with tubercle bacilli. It does not tell us if the case is active or latent. It does however prove of great importance when occurring repeatedly negative as indicating the non-existence of a prior or present infection. When positive it should be supplemented by some other test to determine whether the case is active.

Von Pirquet<sup>1</sup> and Hamburger's<sup>2</sup> results in testing children from infancy to fourteen years of age show that in the congested centers of population, such as Vienna, the percentage of positives is as high as 95 per cent. Fishberg<sup>3</sup> in his series of tests made on 588 apparently healthy children from the tenement quarters of the east side of New York found 52.72 per cent positive. In 692 children of tuberculous parentage tested by the same author the percentage of positives reached the high figure of 83.79 per cent. These figures are closely paralleled by autopsy records made by Harbitz<sup>4</sup> on 484 children dying from various causes. His findings show during the first year of life, 10 per cent tuberculous; second year, 26.2 per cent; third and fourth years, 31.8 per cent; fifth and sixth years, 67.9 per cent; seventh to tenth year, 79 per cent; eleventh to fourteenth year, 83 per cent; and in the fourteenth year, 86 per cent. F. Amenta<sup>4</sup> of Palermo, Italy, applied the Von Pirquet to 800 non-clinical cases of tuberculosis and his results are practically the same as the above. Manning and Knott<sup>5</sup> applied the Von Pirquet to 228 children coming to the tubercu-



lous division of the Seattle Department of Health; 166 of this number had known exposure, of these 50.6 per cent were positive. The remaining 62 children had no known exposure; 14 or 22.8 per cent reacted. The total per centage of reactors in the whole group was 42.9 per cent. The discrepancies in these figures with those of Fishberg, Hamburger and Von Pirquet are due in the opinion of the authors to community characteristics of climate, housing and sanitation. Cattermole<sup>6</sup> made the Von Pirquet test on 66 Colorado children and found 38 per cent positive. Only 50 per cent of these children's parents were tuberculous. According to the locality from which the material is drawn we may expect reactions varying from 38 per cent to 52 per cent in different sections of the United States.

#### The Intradermic Test.

The intradermic test has not received much attention in its application to children inasmuch as the Von Pirquet has been better understood and its results in a general way very satisfactory. Sometimes it is used to supplement the Von Pirquet when that reaction was found negative. Its advantage over the Von Pirquet consist in its certain absorption and to its elasticity in regard to the size of the dose desired. Very high dilutions of tuberculin can be administered intradermally and the amount injected controlled accurately. Its greatest application has been made use of in determining the degree of hypersensitiveness of actual cases of tuberculosis when it is desirable to regulate the dose of tuberculin with which to commence treatment. For instance, Meyer Solis Cohen<sup>7</sup> used the test to determine hypersensitiveness in 28 cases of tuberculosis in the different stages of the disease. He used dilutions of 1-10,000,000, 1-1,000,000 and 1-100,000. If no reaction were observed from these dilutions he next injected 1-10,000, 1-1000 and 1-100 milligram and so on up to 10 milligrams. The injections were made one above the other commencing distally with the weakest solution. He regarded an induration or a papule as a true reaction. He gauged his dose of tuberculin according to the degree of hypersensitiveness and concluded that the appropriate therapeutic dose corresponded to the dilution

that gave the minimal reaction when injected intracutaneously.

In 1910 White and Van Norman<sup>8</sup> introduced a cutaneous test controlled by an intradermal, to measure the patient's sensitiveness to tuberculin for the purpose of finding the initial dosage with which to commence treatment. They employed 0.01 c. c. of a 1 per cent solution dropped on a 2 mm. scarification. If the reaction after 48 to 72 hours did not exceed a 4 mm. cutaneous area of inflammation they gave after four days the same amount intradermally, and if the reacting area did not exceed 5 mm. they considered this a safe dose to administer for treatment. In case the above measurements were exceeded they used a weaker solution for the test. In a recent report on the use of this combined cutaneous intradermal test by Sieber<sup>9</sup> in 40 cases of surgical tuberculosis the author had better success in treatment than by any method he had ever employed. Including 28 cases previously reported by Cashman, with his own 40 there were 57 cases in which the treatment extended over a reasonable period of time. Of these, 30 were discharged as cured and 27 as improved. The cases covered tubercular adenitis and various bone and joint tuberculosis.

#### The Ellis Multiple Papillary Cutaneous Test.<sup>10-11</sup>

A test which has recently come to the attention of the writer and which seems to promise well in its application to children was brought out about a year ago by Ellis, the tuberculosis medical officer for the County Borough of Middlebrough, England. The author claims to be able to detect the various stages of tuberculosis from the latent to the advanced forms by means of the test. Further, the test indicates the amount of tissue involved, and points the way to an accurate prognosis and treatment. He has called the test, the Multiple Papillary Cutaneous or M. P. C. After much experimentation he concluded that the papillary layer of the skin of all the layers was the one most sensitive to tuberculin in contradistinction to the Von Pirquet which penetrates only to the lymph layer. A prerequisite of the M. P. C. demands that the scarifications shall open the papillary layer of the skin so as to draw blood.

The scarifications are made with an ordinary vaccination lancet through each of seven drops of the solutions placed in a row on the inner side of the forearm. The solutions used are Bovine full strength for Mark No. I. The other five solutions are made from old tuberculin, human type. Mark No. II is a 1-10 solution; Mark No. III is 1-100; Mark No. IV, 1-500; Mark No. V, 1-1000; Mark No. VI, 1-10000 and Mark No. VII is the control. Reactions are divided into four classes; those reacting to 1-500 or Mark No. IV are hypersensitive. Those definitely responding to 1-100 or Mark No. III are sensitives. Those classed as subsensitives and insensitives respond to dilutions under 1-100. A highly colored edematous reaction denotes an active lesion, a dark colored reaction signifies an old or quiescent lesion. If nearly black with no swelling the case is going to the bad. No reaction is shown if a large amount of tissue is involved or if the case is far advanced. Incipient cases involving only one small lung focus yield a reaction to Mark No. I or II. Probably the amount of lung yielding a "VI" reaction would be a very small fresh patch, just definitely detectable by the stethoscope at one or both apices, and covering at most an area of two inches, larger areas and older disease giving fewer reactions. The usual moderate area gives "III" or "IV" on the descending scale, having passed their most sensitive condition. As a usual thing bone and eye cases give lower reactions. Gland cases usually give higher reactions. Two or more lesions of dissimilar tissues give the highest reactions. A No. III reaction is the most important mark for the pediatrician as it is the dividing line between active and latent infections. When the author gets a No. III reaction he considers that there is always active disease present. This opinion that "III" means an active focus has become very definite since the military recruiting examinations, when "III" have always been withheld for observation, and they have almost universally shown that the warning was correct, and that danger to their resistance was considerable. Up to the present no cases that had been passed have been returned; on the other hand, two cases examined who gave a definite warning reaction, but who had no very definite lung symptoms and

who without the knowledge of the author succeeded in enlisting, have been returned because of tuberculosis. In 333 children sent in by the medical school inspector, the author found only 74 absolute negatives, whereas, in 167 adults sent in by various physicians as being suspicious there were only 6 negatives.

The following tables show the results of the Ellis test in 500 cases, 333 children and 167 adults:

Per cent results to total tests in the 500 cases.

Negatives .....	18.0%
Reacting to 1 in 10, Group I and II.....	20.4%
Reacting to 1 in 100, Group III.....	8.6%
Reacting to 1 in 500, Group III and IV.....	38.6%
Reacting to 1 in 10,000, Group V and VI.....	14.4%
	100.0%

Per cent to age groups in 410 reacting cases.

	Adults	Children
Reacting to 1 in 10, Group I and II	26.6%	23.6%
Reacting to 1 in 100, Group III...	12.5%	9.3%
Reacting to 1 in 500, Group III and IV .....	45.4%	48.0%
Reacting to 1 in 10,000, Group V and VI .....	15.5%	19.1%
	100.0%	100.0%

In looking over these tables it is surprising to find such a large number of children reacting to the higher dilutions. Providing this test is as active as claimed, the results of these tests would show that there is a far larger number of active infections among children than we ever dreamed of.

Twenty-three Ellis tests made by the writer gave 10 positive to number II mark, three reactions to number III mark, and 10 negative tests. This makes a little over 50 per cent positive in the series. In seven of these children there was no known exposure, three of them, or a little under 50 per cent, gave a positive number II, being classed as latent. The result of this small series shows but three active cases out of twenty-three, or a little over 10 per cent. Should this ratio hold good for the entire population of this locality these children should be kept under close observation. As the writer's series is so small in comparison with the authors it would be unfair to draw any definite conclusions therefrom.

### Conclusions.

Further investigations by means of a reliable tuberculin test should be undertaken to separate active from latent cases.

All children shown active by a tuberculin test should be kept under close observation by the health authorities and if possible sent to preventoria for at least one year or until the test shows no activity.

In the treatment of clinical tuberculosis the case should receive the benefit of tuberculin and the initial dose should be determined by one of the hypersensitive tests.

The hope for the eventual eradication of tuberculosis depends on the prophylactic measures directed to the care of infected children.

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### MEDICAL CO-OPERATION IN THE PROBLEM OF WAR SYPHILIS.\*

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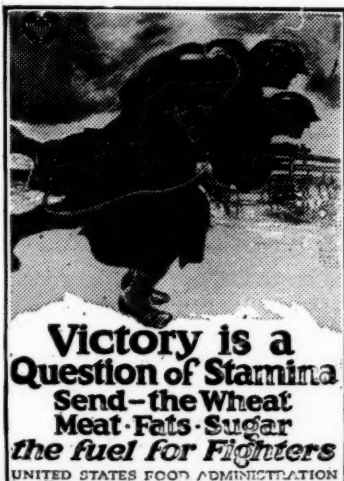
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The contact between the medical profession and the modern problem of syphilis is most direct and imperative at three points. If an effective public campaign against the disease is to be developed, there must be, not alone the laws, rules and penalties recently provided, but earlier and more efficient diagnosis of the disease, prompt and more effective treatment, and a new era of public enlightenment and co-operation.

#### I. The Need For Earlier Diagnosis.

Early diagnosis of syphilis is perforce a novel conception to many men who are practicing medicine at the present day. For the older generation of medical men it had relatively little point, armed as they were with the feeble and ineffective weapons of mixed treatment *per os*, and the pea-sized inunction. To men with the older conceptions of the disease firmly rooted in them by a generation of practice, it must appeal as heresy to insist that waiting until a secondary eruption appears loses the benefit of some of the most epochal advances in the history of medicine, and deliberately robs the patient of the one crucial opportunity for a cure of his infection. Yet this does not overstate the fact. The modern diagnosis of syphilis in the early primary stage if possible, before the organism has spread to the lymphatics adjacent to the primary lesion, but at all events before the Wassermann reaction has become positive, is more far reaching in its medical and social significance than the finding of the tubercle bacillus in early tuberculosis. It is more significant because it points, not to a dubious prospect but to instant and effective action. The institution of radical treatment of syphilis at this stage accomplishes what syphilologists term the abortive or radical cure



\*Read before the Saskatchewan Medical Association, Moose Jaw, Sask. July 16, 17, 1918

of the disease. The first injection of salvarsan puts an immediate end to the infectivity of the patient. Within eight to twelve hours there are no longer any organisms obtainable from his lesions. Repeated injections of salvarsan, with intense mercurialization over a suitable period of time, seldom less than a year, seems to accomplish a sterilization of the body. I say seems, because no one can as yet rate the abortive cure of syphilis as a completely demonstrated fact, since such demonstrations have as their first essential, time. But the hope seems so reasonable, the undoubted tangible benefits in the form of a practically negligible period of infectivity, a greatly shortened period of treatment, and effective suppression of all bio-serologic evidence of the disease are so worth while, that it is no exaggeration to rate the possibility of abortive cure as paramount in the syphilology of today. This should be the treatment for tabes dorsalis and paresis, for syphilitic aortitis and chronic interstitial nephritis, for gummatous osteitis, for iritis, for interstitial keratitis—the treatment that **prevents**. Upon the first four to ten days of the primary lesion, while syphilis is still a practically local, banal infection, diagnosis should concentrate its every resource and treatment reach drum-fire intensity, for never again in the life history of the disease for the patient and his fellow men will there be such another moment.

How has the profession reacted at large, thus far, to this most grave, most pressing responsibility? The spirochaeta pallida was recognized by Schaudinn and Hoffmann in 1905. Thousands of physicians who graduated up to 1910 have never seen the organism. A handful have seen it as a formal demonstration in the pathologic and bacteriologic laboratory. When I graduated from one of the best schools in the United States, I had seen one primary lesion, and that at a distance of forty feet. I had no idea that the discovery of the spirochaeta pallida had any vital clinical bearings, though I was vaguely aware that it had served as a scientific starting point for the work of Ehrlich. I had never seen India ink in use in a clinical laboratory to say nothing of comprehending the employment of the dark field. Yet I had a most thorough training in the diagnosis of tabes and paresis. In 1914 I demonstrated

the spirochaete to a group of active practitioners, not one of them superannuated or unprogressive, who crowded around the microscope as men appreciating a medical curiosity rather than a vital fact in diagnosis and public health administration. Three years ago a medical survey of the dispensaries of New York City disclosed the fact that a negligible percentage of them had either the equipment or the men to diagnose syphilis by the identification of the causative organism. In 1911 in the United States army the ratio of cases recognized in the primary stage as compared with those allowed to proceed to florid secondary manifestations before a diagnosis was made, was 1 to 7. Systematic emphasis on modern diagnostic criteria, including the Wassermann reaction, reduced the ratio, by 1915, to 1 to 4.5. Yet this is far from ideal, and very much short of the possibilities of the new methods. Dudding, and Fildes and Dudding, of the British navy, in criticising the efficiency of the Royal Naval Medical service for a ratio of 1 to 4, call attention to the fact that at least 65 per cent of venereal lesions can be diagnosed as syphilitic, at once, by the use of the dark field microscope, provided the lesion has not been tampered with, and that only 14 per cent of those undiagnosed by this means are subsequently shown to be syphilitic by the Wassermann follow-up. If such facts be accepted, and my own impression is that they fall short of little of the truth, there can be no excuse for a higher ratio than 1 to 1, in the comparative diagnosis of primary and secondary syphilis under the conditions of civil life. The newer staining methods such as those of Medalia may bring the ratio even lower. There is no real obstacle either on the score of expense or inaccessibility; to the very wide adoption by the profession of the only significant means of diagnosis for syphilis at a period when its disastrous sequelae are held in the hollow of our hand.

Though there are many explanations and excuses to offer, let us frankly concede that thus far as a profession we have not had a just conception of the vital importance of early diagnosis in syphilis, or of our responsibility in regard to it. It has taken this war to teach us and the world that modern knowledge of the disease has never been taught in medical



schools. Too many experts in it have seemed to choose to devote their energies to the rehabilitation of its wreckage rather than to the more thankless and less remunerative task of its cure in the early days of the chancre. As students we have had hammered into us the unfortunate and misleading clinical characteristics and means of differentiation of the primary lesion. In the dispensary we indulged in old-school arguments over the relative importance of induration, painlessness, multiplicity, etc., forgetting that a tyro can recognize the Hunterian induration, but that mere clinical dialectics will never penetrate the disguise of an infected herpes, a scabetic papule, a benign balanitis, a phymosis, a gonorrhoea superimposed on a chancre of the fossa navicularis. Under all these forms an overwhelming amount of syphilis has gained a foothold in the human race. Clinical differentiation of the primary lesion has gone to scrap, and laboratory diagnosis, the finding of the spirochaetae pallida, is its successor. Not the Wassermann reaction, I hasten to add, for when this becomes positive, the great opportunity is lost. To the recognition of syphilis by identification of the organism, the training and knowledge of a large part of the profession of today is perhaps inadequate. The more reason then why, in our effort to bring to bear every resource we can muster on this problem for the public good, we should as we have many times done before, concentrate the energies of specially trained men on this work of early diagnosis of syphilis by the means I have described. How to create such a body of specially trained men in sufficient numbers to have one at hand when the need arises, is a master problem in co-operative medical practice, and one for which I shall suggest a solution, after considering the Wassermann reaction in its relation to the problem of diagnosis.

## II. Clinical Diagnosis and the Wassermann Reaction.

Medical men of recent vintage, and older men as well, have been vigorously impressed with the vast diagnostic possibilities of the Bordet-Gengou phenomenon as applied to syphilis. There has arisen in our midst a school of dogmatists, the Wassermann negative clinicians, whose yea is yea and whose nay, nay. To them a positive Wassermann may, of course, mean

syphilis, but a negative, even a single one, is the final and convincing proof of the absence of the disease. This blind and indiscriminating allegiance to the findings of the laboratory on the part of present day clinicians, is one of the stumbling blocks in the path of the syphilographer. Misapplications of this sort seem to be the fate of all short-cuts in medicine. Whenever syphilis is a factor the negative Wassermann is especially an object of unreasoning veneration, because it relieves the examiner of further trouble on a very troublesome score. Our reaction to it is part and parcel of that unfortunate mental inertia where this disease is concerned, which makes us willing to believe almost anything which will prove its absence, and thus save us the labor and embarrassment which are entailed in demonstrating its presence. No man whose acquaintance with clinical syphilis is intimate, foolishly belittles one of our most precious diagnostic aids. Yet every man who works in the midst of syphilis, instead of on its outer fringe, realizes that clinical as distinguished from serological syphilology, is not dead, and that we have yet to return in humility to the feet of the masters who diagnosed brilliantly when Bordet and Wassermann were in their cradles. This seems a singularly heretical utterance for one who, but a moment ago, was clamoring for the laboratory diagnosis of early syphilis, and the apparent discarding of clinical criteria. My contention is that each method of procedure, clinical or laboratory, has its place. The Wassermann has none in the laboratory diagnosis of true primary syphilis. In the florid eruptive secondary stage, the reaction is a godsend to the practitioner, hard pressed by the necessity for dermatological differentiation. In the later periods of the disease, clinical differentiation again comes strongly to the front. There is no sadder example of a man gone after strange gods, than that of a clinician calling for Wassermann after Wassermann in the frantic effort to get a negative report because the patient with the lesion of the palate or the leg, or the condyloma *ad ani*, happens to be a member of one of "our best families," and high in public life. No man will practice medicine adequately, no man will fit into the place of the profession in the new movement against syphilis who does not realize the



limitation of the negative Wassermann, who does not distrust it enough to know that the palm of the hand, the fundus of the eye, the posterior surface of the scrotum, the border of the tongue, the skin of any part of the body, may present evidence to controvert a thousand negative Wassermans. Such purely clinical evidence, he who runs both may and must read, and interpret. There is awaiting us an era of renaissance in the clinical diagnosis of constitutional syphilis, coincident with a growing appreciation of the fallibility of the negative Wassermann.

If the negative Wassermann is destined to yield, in some degree, to clinical judgment, the positive Wassermann must, in its turn, have a restoration to medical confidence. A false positive Wassermann is a diagnostic malfeasance of the gravest type. Better a thousand returns of negative Wassermans in cases otherwise clinically recognizable or suspicious of syphilis, than one return of a positive in the absence of the disease. While it is certainly true that the most expert serologists cannot escape the production of some false positives, it is equally true that frequent false positives are the product of inexperience and over-enthusiasm. The amateur serologist plays with the highly fortified antigens as a baby with dynamite. He approaches his problem with the attitude of a prosecuting attorney, and boasts of his ability to prove a positive. Whatever savors of technical inexperience, of the unjudicial and uncritical temperament, of personal motive and commercial interest, of haste and inaccuracy, has no place in the performance of a reaction as important as this one. Yet every day we allow such elements to enter into our diagnostic management of syphilis. We shall not measure up to our duty in the new movement against the disease until we shall have done away with the unreliable positive Wassermann so far as human fallibility permits. We shall accomplish this end again by a wholesale pooling of personal, state and general professional resources. The practitioner who does occasional Wassermans on the side, will yield to the great state or hospital laboratory, supervised by a serologist whose personal equation and margin of error are constant and minimal. The commercial advertising laboratory, now uncontrolled, will

be done away with or will conduct its activities under a rigorous governmental control such as that which the United States Public Health service exercises, for example, over the manufacture of biologic products and arsphenamine. With every possible factor of unreliability eliminated from the performance of the reaction, with the negative Wassermann once more subordinated to the clinical evidence of syphilis, and with the identification of the spirochaeta pallida by stain or dark field replacing the Wassermann and obsolete clinical criteria in the diagnosis of very early primary lesions, we shall enter upon a new era of efficiency in syphilology.

I venture in leaving the problem of diagnosis to urge upon you the possibilities for usefulness of the heretofore obscure specialty of syphilology. A syphilographer is not a man who knows all about syphilis. You may know the true syphilographer I hope more by his diffidence than by his arrogance. His great function is to co-ordinate a field to which Osler's aphorism justly applies, "Know syphilis in all its manifestations and relations and all other things clinical will be added unto you." The syphilographer is the man who will know what we slangily speak of as the "wrinkle" that helps general men and other specialists out of a tight place in diagnosis. In the new movement against the disease, encourage him. If a man in a town of ten thousand secures a dark field and shows good evidence of special training and aptitude in dealing with syphilis, stand back of him, use him, and help him to enlarge his horizon. Get together, as a medical society, and discuss who within striking distance of you does a reliable Wassermann, and then all patronize him, and boost his efficiency. Let the local surgeon pause before removing a finger or a limb for "sarcoma," or a primary lesion of the lip or tongue, simulating an epithelioma with glands, or condylomas in the guise of atypical hemorrhoids, until he has called in the man in his locality who is interested in and has some special knowledge of syphilis. Never let a bubo pass without a glandular aspiration for spirochaetes. Cease to do circumcision in the presence of undiagnosed lesions on the foreskin. Punish with your scorn and medical ostracism the man who uses cautery, dusting powder, and

pooh-pooh upon the penile sore, or upon the eroded papule or leukoplakial plaque on the mucosa, until he has competent advice on the question of syphilis. A new day will dawn for the social order and for our patients, when we are not afraid to publicly denounce as a quack the man to whom all dermatoses are simply "heat rashes" or "ring worm" or "eczema." It is only by shoulder to shoulder co-operative work of this sort that we shall be able to win the degree of public confidence essential to the successful conduct of the new campaign against syphilis.

### III. The Problem of More Efficient Treatment.

Our second great obligation as a profession in the movement against syphilis, is to provide more efficient treatment. The outstanding difficulties in the present unsatisfactory situation concern: (1) the factor of the high cost and the necessarily long duration of treatment, (2) the difficulty of maintaining the patient's co-operation, (3) the willingness of patient and physician to be contented with symptomatic results, and (4) the inroads made by quackery on a field of this character.

**Cost.**—The high cost of treatment for syphilis is a problem whose seriousness no physician has lacked opportunity to appreciate, sometimes to his own cost. The long duration of the disease, the necessity for repeated elaborate tests, the time-consuming manipulations, all make the proper care of a case a burden on the physician quite as much as on the patient. If we are to make effective headway against the disease we must be prepared to put the maximum of effort on its early stages. Yet at this stage of the game the large majority of our patients will be in the least productive period of their lives, just starting to make a way in the world, and not in position to carry a heavy financial burden. When in later years they reappear in the guise of tabetic bank presidents, retired farmers with aortitis, wealthy merchants with hepatic cirrhosis, ready to barter their last possession for a bit of health, nothing can be done. It is indeed a wise provision of the Scandinavian type of public program, after which your own is patterned, which draws on public funds for assistance in treatment when necessary, preferring rather to

pay taxes to secure healthy citizenship, than to pay them to support invalidism. But such plans will not be of immediate or universal application, no matter how ambitious the program for public facilities. There is great need for an immediate concerted effort to reduce the cost of treatment for syphilis for that very large class of patients of moderate means, who fall between public charity and the expensive private services of the specialist. This movement has already had some application to other fields of medicine, as you know. A great step in advance in the treatment of syphilis can be made in a short time by the pooling of resources and the treatment of a number of patients under one central direction. Such centralized service for the management of syphilis can be established in connection with the larger hospitals and medical groups at the present time, and is capable of providing both a high-grade treatment and an advisory service for ordinary people at moderate cost. For admission to such a service the patient should pay a minimum advance fee that covers the cost of medication, his professional fee being subject to later adjustment according to his means. If he is not able to meet the advance fee, he should, in general apply for aid to a public dispensary. Pay services of this type can be carried on economically and yet command a large and very acceptable clientele. The returns both financial and scientific justify the time and attention of an expert. In this type of organized effort for the better care of syphilis, all the voluntary incentives to the best type of co-operation between physician and patient can be brought to bear. Early diagnosis is available, treatment can be made more nearly ideal, each patient can be followed up and can learn the social and personal relations of the disease. The disastrous effects of being lost sight of during the contagious period and later, can be largely prevented. I can unhesitatingly commend to your attention this innovation in the co-operative management of syphilis as an adjunct, and a most necessary one, to the measures contemplated in your public plans for reducing the cost of treatment. You should not wait passively for the state to take over the whole situation, for between the announcement of the program and the completion of the

work you will find innumerable difficulties, best met by providing a temporary but effective substitute in private initiative.

**The patient's co-operation.**—Our second obstacle to efficient treatment, the failure of the patient to co-operate, is often as much our responsibility as his. There are undeniably those who will do what is best for them only under duress and legal compulsion. But I have found the large majority of syphilitics to be extraordinarily amenable to the personal touch, and more often careless or indifferent through ignorance than folly. Few really intelligent human beings, and there are a large proportion of them among the victims of this disease, will deliberately seek their own disadvantage if the matter is laid before them in an understandable yet authoritative manner. We do not need to wait for the promulgation of laws to bring syphilis to book. In fact if we do wait, our very passivity will make the laws dead letters when they come. Each one of us must be active in seeing that the number of patients who disappear from his care uncured, is brought to an irreducible minimum. Frankness, fearless honesty, thorough-going knowledge, and a warm-hearted humanity on the part of his physician make as strong an appeal to the syphilitic as to any other patient. To supply more of these qualities in ourselves, is the best way to meet the reproach that we cannot hold syphilis to adequate treatment.

**Symptomatic cure.**—The common acceptance of symptomatic and partial criteria as standards of cure, is the most serious aspect of the problem of more efficient treatment. For one man the symptomatic clue for stopping treatment is the disappearance of the eruption, or the healing of the lesion. For another it is the first or the second negative Wassermann. A third will say to his patient, at the end of three years of treatment and Wassermanns, "You have had 20 injections of arsphenamine, and five courses of mercury salicylate. I have done all that the best practice requires. You are cured." Within a year the patient will die, as I have known him to, of general paresis. Such cases simply point the moral, that the search for evidence of cure in this disease must extend into every nook and cranny of the body, and employ every conceivable resource. The

provocative test, the examination of the fundus of the eye, the condition of the eighth nerve, the spinal fluid examination must all be employed and then the result can only be interpreted in the light of a full clinical experience with the case. The pitfall of symptomatic results and false cures will never be done away with until each and every one of us realizes that there is no one finding or symptom which signalizes the cure of syphilis, not even reinfection, so long as the question of superinfection is not laid to rest. Neither is there any specific amount or kind of treatment which can be regarded as standard, though the misconceptions on this score are well evidenced by the practitioner's favorite question, "What is your treatment for syphilis?" In the face of the moot points and contentions that confront us everywhere, it is impossible to dogmatize. Repeated negative Wassermanns may be obtained (Fruhwald) on persons in whose blood the *spirochaeta pallida* can be demonstrated by animal inoculation. Active lesions may appear on the mucosa of patients who are Wassermann negative, or who are in the midst of intensive mercurial treatment with inunctions or insoluble injections. On the one hand one sees neuro-recurrences from the inefficient use of salvarsan, on the other from the inefficient use of mercury, and again following the adequate and intense administration of both drugs. We see a woman at the age of forty-five, with nothing remaining of her infection except a low-grade choroiditis and a reduced bone conduction with normal hearing. Treatment in her case had consisted of a few weeks of pills during her eruptive period. Her husband after receiving essentially the same treatment is now an advance case of paresis. A given patient has by painstaking and persistent use of modern methods been gradually freed from all clinical and serological signs of the disease and has remained free. To compare with him we have another patient of seemingly the same type, who, under the same management has obstinately refused to respond. For the confusion of mind which the contemplation of these things engenders, I can only offer certain generalizations to guide you in your use of modern methods in the treatment of syphilis.

Accept no single sign of improvement in the disease as an indication to stop treatment, if the tolerance is normal. Only the all-around cessation of the process means anything, and it means nothing unless it persists through months and years.

Arsphenamine therapy is essential. It, and not mercury, controls contagiousness. It, rather than mercury, yields the quick symptomatic result.

Mercury is indispensable, a homely but reliable servant, the basic factor in permanence and the great renewer of immunity.

Most syphilis is undertreated. Strike hammer blows and strike them early. Treat a little too much rather than not enough.

Promise no man a cure, and release no patient from the obligation of occasional observation throughout life. Our experience with modern methods is still too brief to justify anything but an extreme conservatism. The man who treats syphilis with these principles in mind will be an efficient servant of the public good in whatever capacity he may be called.

**Fraudulent exploitation.**—Few physicians, I think, realize their full duty toward quackery and fraudulent exploitation in the field of the venereal diseases. I want specifically to direct your attention to drug-store prescribing, which I think outside of our own professional blunders, is the most fruitful means of defeating the early recognition and prompt, efficient treatment of syphilis. An untreated primary lesions is the *sine qua non* of an early diagnosis. Repeated public health investigations have shown how often the patient is lulled into a short-lived false sense of security by a little calomel powder or a wash offered him by a drug clerk in whom he confides. In our larger cities the trade in iodide and mercurial mixtures as blood tonics is enormous, and destructive in its effects. The legislative programs of European countries, including Great Britain, specifically provide for the punishment of this type of malpractice. Be active in the search for it yourselves. Set traps for druggists who dispense treatment, or who carry nostrums of this sort on their shelves and secure their punishment. No medical society is doing its full duty which is not active in this work.

**Centralization and specialization in treatment.**—By way of a summary of what I have said on more effective treatment, I want to reiterate that the centralizing and specializing tendencies observable all through medicine can be applied very satisfactorily to the management of syphilis, and that this is the trend of all the modern movements. Our best co-operation in the problem will be along these lines. There seems no intrinsic reason why with a little self-sacrifice on the one side and a little consideration on the other a co-operation between the clinical expert on syphilis and the general man cannot be developed, similar to that which prevails in specialties such as surgery. Hospital and clinical centers for the control of treatment and for expert advisory purposes can be developed in the larger towns, to which the men in smaller towns and in the country could periodically refer their patients for opinions and special examinations. Such centers could offer the attractions of private care, as I have explained. Every patient should undergo a period of residence in such a treatment center, to learn, as do Joslin's diabetics, the principles and the hygiene of their disease, and to give their consultant intimate personal knowledge of their cases. In my own experience with syphilis as it is dealt with by the profession at large, the factor most often lacking in the previous management of the patients I see, aside from diagnostic knowledge, has been judgment,—the realization of when to stop, when to begin, what to do next. Certain elements of expert judgment are of course not to be gained from texts or delivered in lectures or dispensed *ex cathedra*. They are like eyesight and intuition—not transferable. There are few more embarrassing or unanswerable questions than that favorite of the general practitioner, "how do you treat syphilis?" There is no doubt that much of the real benefit of expert management for the disease can be secured by periodic refers to a consultant or advisory center, where the same syphilologist can periodically renew acquaintance with the case, aided by a complete system of record and all the modern tests. Such centers the profession should be making efforts to create voluntarily in the ways which were suggested under early diagnosis, in which the same problem exists. It



will interest you to know that Germany has developed just such a system of supervisory centers for the care of infected soldiers on their discharge from the army. Under this system each man will be paroled so to speak, to the advisory center (Beratungsstelle) in his home neighborhood, and his treatment will be continued by duly authorized practitioners under the direction of the center. Similar measures are in contemplation to meet the problem of post-bellum venereal disease in other belligerent countries, and the way is paved for them in the Anglo-Saxon plans in general. Their extension to the management of the disease in civil life and private practice already has its homologue in the field of tuberculosis and it will come inevitably in the care of such a disease as syphilis. As a profession we shall be wise then, to initiate the measure of our own free will, rather than to have it forced on us by a growing public appreciation of its necessity. It rests with us to disprove the pessimistic estimate of one of our most widely known genito-urinary men, that any measure which tends to make treatment effective in syphilis, and tends to bring it into the hands of experts, will be made over the dead bodies of the medical profession.

#### IV. Public Enlightenment and the Medical Profession.

We must assume a larger share in public enlightenment. This is our third great point of contact, as a profession, with the modern problem of venereal disease. Public enlightenment is coming inevitably. Every man who returns from the war will become a focus for crude and uncontrolled enlightenment. The increase of syphilis in such a country as France is being estimated already on the basis of the fact that it was two and one-half times as prevalent in one of the large Parisian clinics in December, 1916, as it was in 1914. In all the armies of the world, millions of men are being educated on the subject of sex hygiene, on moral and medical prophylaxis, and on modern methods of treatment. Their return will be followed by a wholesale dissemination of knowledge at second hand which will penetrate every corner of the earth. It will compel a revision of medical standards, which we can do no less than anti-

cipate voluntarily. Where will the man be who says, "I don't believe in the spirochaeta pallida and salvarsan," five years from now? Traditional silence, ultra-conservatism and stand-pat ethics will be swept to oblivion, and their adherents with them. Already Italy and Germany have inaugurated, in a most uncompromising fashion, a campaign of public enlightenment which we Anglo-Saxons are perhaps disposed to regard as extreme. Dissemination of knowledge on venereal prophylaxis and treatment to the population at large, has the sanction of these governments, and its spokesmen are like Blaschko and Stanziale, among the leaders of the medical profession in the field in their respective countries. If we sit by while public understanding of the situation outstrips us and goes on to the development of new policies in which we have been obstructionists rather than participants and leaders, spokesmen and molders of public opinion, we shall richly deserve the contempt which will be ours. There cannot be too much enlightenment, and the responsibility for its authenticity, its high moral quality and its universal spread is up to us. If we let the ministry stand sponsor for the morals, laymen for the authenticity, and the Y. M. C. A. for the enthusiasm, shall we not stand justly accused of what Robert Louis Stevenson prayed to be delivered from—cowardly silence and misleading speech?

What shall we do? First, be informed on the situation. Every physician should be vitally interested at this time, in the whole movement for the control of venereal disease in the armies and navies of the world. We should be reading the literature, studying the returns, asking questions. From the efforts of medical officers particularly, we must draw the lessons which will enable us to control the situation in civil life. Civil life is the focus of infection. Contrary to the usual conception, there seems little reason to doubt that the percentage of venereal infection is much higher in the general population than it is in the military forces of the world. This brings the obligation for the deplorable conditions which have prevailed, squarely on us. The well-known increase in venereal morbidity occurring during the mobilization of troops, illustrates the immediacy of the relation. With all due allow-



ances made for the somewhat greater disposition to sexual laxity among recruits which prevails at such a time, we cannot fail to be impressed with the index of civil conditions furnished by the flood of venereal infection which occurs coincidentally with each new increment to an army from the general population. No one army or nation has a monopoly of this situation. The Surgeon General's reports for the United States armies during the various mobilization movements are perhaps the best body of statistics extant illustrating the point, though the observations of Klausner, Tullidge, Thibierge and others, have shown that high mobilization rates have been the rule the world over, and that they have been in the past too little appreciated, owing to the lack of adequate statistics covering the point (Great Britain for example). There can be no escaping the fact that unless we make the most heroic efforts to control the sources of infection in civil life, the work of our army surgeons will be nullified repeatedly by the wholesale importation of infected material and by the constant exposure of the personnel to risks, which even the most rigorous prophylaxis cannot minimize.

Physicians have, I think, in the past, been entirely too prone to separate social from medical problems, and to appropriate the latter to themselves, leaving the former to a stepmotherly care at the hands of laymen. Such an attitude spells retrogression in the control of venereal diseases. If there is any field in which the physician can appropriately play the role of sanitarian, moralist, clergyman, lawyer and business man, it is in this one. One of the revelations of the war has been the importance of the personal, the social and the moral factors in the control of disease in general, and of venereal disease in particular. Athletic activities, recreation, letters from home, the theater, hot coffee, have all been called on to help in the maintenance of morale. Lessons of direct applicability to the civil population are to be learned on all sides from the success of the American Commission on Training Camp Activities, the International Y. M. C. A., the Committee on Civilian Co-operation of the Council of National Defense, the Salvation Army, and similar types of organization of the various belligerent countries, whose task has been to

keep the soldier "Fit to Fight." We believe that the United States at the outset of its participation in the war, set an example worthy of your emulation, in standing for the outright suppression of prostitution wherever it can be reached, rather than its official toleration, as in Germany and France, its actual officialization as in Italy and Japan, or the attitude of *laissez faire* which even British officers have been obliged to confess has marred their army program. From our armies we must draw the lessons in ideals and methods that will enable us to cope with our side of the problem in the general population. That part of the profession which still holds the outposts in civil life in all parts of the world, cannot ignore its opportunity and its duty. Every town within furlough distance of a cantonment which contains a vicious rendezvous for soldiers means a slack medical profession, quite as much as an inefficient police force and a low morale. Every medical examiner who certifies a man to be physically fit, without at the same time warning him in brief but unmistakable terms as to how he should preserve his fitness, has lost an opportunity to serve in the first line trenches in this fight. Every woman known to be a source of infection who continues to ply the trade, is a reflection on some one of us who has not done his bit to suppress such activities. The batches of infected men who go to mobilization camps are less a stigma on the civil population at large, than on its physicians who know what these things mean, and have tolerated them. No law except our consciences can exact of us these vital services to our cause. Let us see that they pledge us to them without reservation.

I think that medical men generally are also too much inclined to take negative attitudes on social questions. We must have only one ideal in this work—to emulate the apostle in becoming doers of the word and not hearers only. These are the times for us to cast dignity aside and throw our hats into the ring. See that there is a brick in each hat for the man that kicks it. Be positivists. Stand for no less a principle than the absolute suppression of every vicious incentive to sexual activity. Preach continence without a smirk. See that no man is victimized through ignorance of the situa-

tion. Never let medical prophylactic advice to the man who exposes himself be your last word on the subject. Most of us have sons. Most of us know what it will mean to us to see them grow into straight men, men of honor and integrity, of unbesmirched bodies and minds. How can we contemplate with equanimity the lineup of our sons before a row of official prostitute cribs, or offer to the boy who represents our immortality and our hope a tube of calomel ointment with the satyric injunction "if you can't be good be careful." There is still enough worth while in clean living to command the support of red-blooded men. Nor could there be a more pitiful commentary on the anemic quality of our moral fiber than to have the social hygiene of the future become the plaything of faddists, and the "unco guid," the rallying ground of cranks and prudes.

Let us then, use every opportunity to mold legislation, to teach, and if the opportunity offers, to preach. Sooner or later Canadian physicians, no less than those in every other country, will confront the problem of the dissemination of prophylactic knowledge on venereal disease among the public at large. Begin to give the matter earnest thought, and to educate public sentiment to its dangers as well as its advantages. Medical prophylaxis for venereal diseases should, I believe, remain under the control of the profession, and it will be one of our first duties after being able to administer it, to see that it is never given without a generous and effective dose of moral and educational prophylaxis. It is one of the specific provisions of the military medical code of the United States army, that the prophylaxis shall never be permitted to become a laughing matter, and that it shall be in the hands of men whose prestige and responsibility fit them to say the effective word or two that keeps many a young fellow from becoming a "repeater." Prophylaxis is too effective an instrument against venereal disease to long remain in the background when the campaign is once in full swing. See to it that it is effective for good and not for evil when the power to use it is placed in your hands.

Let me urge it on you that you teach. If more of you would appreciate the *ex cathedra* position which the medical profession holds on the subject of venereal diseases, you would teach for the sheer delight of being heard as

gospel. Let those among you with the compelling eye and the power to swing the vernacular, use those powers in behalf of public enlightenment, and let stutterers discretely hold their peace. Much able work has been done by committees of medical societies and boards of health in the United States and in our larger cities in the development of organized intelligent publicity on the subject of venereal disease prevention and control. One of the most effective methods thus far found has been the use of visual impressions, always the most vivid and convincing mode of teaching, in the form of so-called health exhibits. In these exhibits, authentic information is conveyed by placards and picture posters, skillfully prepared. Such exhibits can be obtained from the American Social Hygiene Association in New York, and set up in small towns and concentration camps, hospitals and Y. M. C. A. centers. They are immeasurably superior to tracts and leaflets, in teaching the average layman, as the experience of the armies abroad has shown. None of this work is too petty for us to do, and all of it yields a substantial return in the more intelligent co-operation which it gains for us on all sides.

I realize that I have been talking to busy men, hard pressed by the labor of carrying on not only their own professional responsibilities, but those of the men who have been drawn to the armies. But we are penny wise and pound foolish, and shortsighted beyond belief, if we devote hours of precious time to the diagnosis and treatment of the sequelae of venereal disease, and have none to spare for the vastly more effective measures of prevention. I myself, need these reminders of duty as much as any of you. We are slackers if we do not support the new regime by redoubled stress on the vital necessity for early diagnosis and vigorous, effective treatment. Individually or by unselfishly pooling our collective resources, we must provide the men and the means to make new laws and modern methods effective. We must, moreover, emerge from our professional reserve to study and deal with the problem of the venereal diseases from the standpoint of human nature, of the social order and of high principle. In these ways, quite as truly as by the formal filing of notification blanks and the invoking of the law against the recalcitrant and irresponsible, will we serve.

# Minnesota Medicine

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ASSOCIATION

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LOWRY BUILDING : : SAINT PAUL, MINNESOTA

St. Paul, Minn., April 1, 1918.

## STATEMENT OF OWNERSHIP

of MINNESOTA MEDICINE as required by Act of Congress of August 24th, 1912.

MINNESOTA MEDICINE is published by the Minnesota State Medical Association, Lowry building, St. Paul, Minn.

ERNEST T. F. RICHARDS, M. D., St. Paul, Minn., Editor.

J. R. BRUCE, St. Paul, Minn., Business Manager.

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## MINNESOTA MEDICINE

By J. R. BRUCE, Business Manager.

All correspondence regarding editorial matters, articles, advertisements, subscription rates, etc. should be addressed to the Journal itself, not to individuals.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association.

Subscription Price: \$2.00 per annum in advance. Single Copies 25c  
Foreign Countries \$3.00 per annum.

Vol. I September, 1918 No. 9

## EDITORIAL

### NECESSITY KNOWS NO LAW.

The rapidly increasing fighting forces of the United States Army, so familiar to every doctor who reads the lay papers, must impress him with the fact that the Medical Reserve Corps must keep pace in the way of expansion.

With every thousand men in the fighting forces there must be ten medical officers, so it is a matter of simple calculation to figure the requirements of the Surgeon General's Office in the number of medical officers that must be at the command of the Surgeon General when required.

With three million men in the United States Army by the end of August, this means 30,000 doctors, and there are now less than 20,000 on the active list of the Medical Reserve Corps. In addition to the number required for immediate assignment with troops, a large Reserve Corps should be at the command of the Surgeon General so that when the necessary number is required, they will be at his disposal.

The doctor is the most favored of all professional men in the matter of his assignment. The lawyer, as an example, when drafted or when he voluntarily offers his service and assigned to duty, draws \$30.00 a month pay. The lowest pay accorded a medical officer is \$2,000 a year with additional pay for commutation of quarters for dependents.

It is the belief of the Surgeon General that a sufficient number of physicians will voluntarily come forward and offer their services as medical officers, and we therefore must do our duty not only to our country, but to those who are so admirably conducting this war in which we are now engaged.

A large and well trained Medical Corps is absolutely essential as 80 per cent of the casualties are returned to the line through its ministrations and it must not be a matter of history that a sufficient number of medical officers have not volunteered their services to properly care for the mobile forces, attend the wounded and sick in hospitals and to supply the Surgeon General, whatever the demands might be.

Five thousand physicians a month for an indefinite period is the requirement and those doctors who are of the opinion that other physicians in their immediate neighborhood are better qualified or have less responsibility than themselves, should, in view of the crisis now facing us, subjugate their individual opinion and apply to their nearest Examining Board for a commission in the Medical Reserve Corps.

A Medical Reserve Corps should be what its name implies, a corps of reserve physicians upon which the Surgeon General may call; and this country today should have a Reserve Corps of not less than 50,000 doctors and every physician should feel it his duty to be part of this organization.

### WHY SHOULD THE SURGEON GENERAL APPEAL FOR MEDICAL OFFICERS?

Of the 146,000 doctors in the United States, it is a safe calculation that at least 70,000 of this number are within the age limit, from 21 to 55 years, and are physically and morally qualified to serve as Medical Reserve Corps officers.

Why, in view of this fact, the Surgeon General's Office should be hard put to secure a sufficient number of medical officers to supply immediate demands and to furnish a reserve force of between forty and fifty thousand doctors is not quite comprehensible.

Every qualified physician, knowing how essential his services are to his country at this particular time, should consider it not only his duty, but a privilege to take part in this glorious struggle for humanity and democracy.

This is the time when individual opinion must be sacrificed for the benefit of the whole, and the time is near when every doctor must be in one or two classes: either a member of the Medical Reserve Corps, United States Army, or in the Volunteer Medical Service.

If you are between the age of 21 and 55 years, and there is a doubt in your own mind as to whether you are qualified or not, let the Surgeon General determine this matter by applying at once to your nearest Medical Examining Board for a commission in the Medical Reserve Corps.

### DIGITALIS GROWN IN AMERICA.

Up to the entry of the United States into the war this country had depended largely upon German houses for crude drugs and the chemical extracts made from them. For example, the United States was using German-grown digitalis. Certain universities, notably those of Minnesota, Wisconsin, and Oregon, had for many years in their pharmaceutical departments grown small areas of digitalis and other medicinal plants. More fortunately still, Prof. Rowntree, of the University of Minnesota, had made pharmaceutical tests of the digitalis grown in connection with this university and had found it quite equal, if not superior, to German-grown plants. The Research Committee of the Council of National Defense appealed

to this university and it responded promptly and patriotically. During the summer of 1917 it grew and harvested about 2 acres of digitalis, at a cost of approximately \$3,000. In addition to this, wild digitalis in Oregon and Washington was gathered in considerable quantities, and all this material has been properly prepared and turned over to the Medical Supply Department of the Army, so the supply of digitalis in this country is ample. The American-grown digitalis is a different species from that ordinarily grown in Germany, and this species has proved pharmaceutically to be even better than the German species.

### VOLUNTEER MEDICAL SERVICE CORPS.

In order that the services of physicians ineligible for appointment to the Medical Reserve Corps on account of over age (55), physical disability, or civil or institutional needs, and women physicians, might be utilized by the government, the Council of National Defense, upon the recommendation of the chairman of the Committee on Medicine and Sanitation, authorized and directed a committee to organize the Volunteer Medical Service Corps. A special committee to draft a plan was appointed, and on January 13, 1918, the plan presented to the General Medical Board was approved. The central governing board, in which is vested the general management of the corps, was appointed and the machinery has been set in motion to secure members, first application blanks being sent to the 5,000 doctors ineligible, because of slight physical disability, for the Medical Reserve Corps. The central governing board is a committee of the General Medical Board. The state governing boards consist of the state committees, medical section, Council of National Defense.

The services of the members of the corps will be rendered to existing governmental agencies upon the request of the Army, Navy, Public Health Service, and American Red Cross to fill certain needs not already covered, and such other services as may be determined by the central governing board of the Volunteer Medical Service Corps.

The procedure for joining is simple. The applicant forwards his filled blank to the central



governing board in Washington, and it is then referred to the proper committee for its recommendations as to the qualifications of the applicant and as to the kind of work for which he seems most fitted.

#### *Rules of Organization.*

1. *Name.*—The name of the organization shall be the Volunteer Medical Service Corps of the United States.

2. *Object.*—(1) The object of the corps shall be to establish an emergency medical organization to perform, when required, such civic and military duties as are not provided for.

(2) Services of members will be called for and rendered in response to requests to a Central Governing Board from the Surgeon General of the Army, the Surgeon General of the Navy, the Surgeon General of the Public Health Service, the General Medical Board of the Council of National Defense, or from other duly authorized departments or associations.

3. *The Corps.*—The corps shall consist of all members of the organization. The general management of the corps shall be vested in a Central Governing Board.

4. *Central Governing Board.*—The Central Governing Board shall be a committee of the General Medical Board, Council of National Defense.

5. *Officers.*—The officers of the corps shall be a president, a vice president, and a secretary, and shall be appointed from among the members of the Central Governing Board. These officers shall constitute the executive committee of the Central Governing Board, and shall direct the activities of the corps.

6. *State Governing Boards.*—(1) The State Governing Boards shall consist of the members of the State Committees, Medical Section, Council of National Defense. The State Committees shall select, subject to the approval of the Central Governing Board, five of their members who are eligible for election in this corps to act as the Executive Committee of the Volunteer Medical Service Corps in the respective states.

(2) The duties of the Executive Committee of the State Governing Board shall be to consider applications for membership in the corps

from the respective states and to submit recommendations regarding these applications to the Central Governing Board.

(3) The State Governing Board shall aid in the work of the executive committee and perform such other duties as may hereafter be deemed essential by the Central Governing Board to accomplish the purpose for which the corps was created.

7. *Membership.*—(1) Such physicians shall be eligible for membership in this corps as would be accepted in the Medical Reserve Corps were it not for,—

- (a) Physical disability.
- (b) Over age (55).
- (c) Essential public need.
- (d) Essential institutional need.
- (e) Dependents.

(2) Women physicians are eligible.

(3) Application for membership in the Volunteer Medical Service Corps shall be made upon blanks furnished for that purpose by the Central Governing Board. The completed form shall be returned to the Central Governing Board for proper classification according to training and special fitness.

8. *Method of Election.*—(1) The members of the corps shall be graduates in medicine who are licensed to practice medicine in their respective states, who have made application for membership, who meet the qualification requirements that are now or shall from time to time be established by the Central Governing Board, and who shall be elected to membership by the Central Governing Board.

(2) Each physician elected to membership in the corps shall be designated as a member of the Volunteer Medical Service Corps.

(3) It shall be the duty of each member of the Volunteer Medical Service Corps to notify the Central Governing Board when eligibility to the corps ceases to exist.

9. *Insignia.*—(1) Members of the corps shall be authorized and encouraged to wear the insignia of the corps.

(2) The insignia may be secured by members of the corps under such regulations as may be determined upon by the Central Governing Board.

(3) The insignia shall not be loaned to any person not a member of the corps, nor shall it

be worn after notification that eligibility to the Volunteer Medical Service Corps has ceased to exist.

10. Any member of the corps may be expelled for conduct which, in the opinion of the Central Governing Board, is derogatory to the dignity of the corps or inconsistent with its purposes.

11. *Authorization.*—The organization and insignia have been authorized by the Council of National Defense.

### PHYSICIANS LICENSED TO PRACTICE IN MINNESOTA AT THE JUNE, 1918, EXAMINATION.

#### Upon Examination.

Anderson, Hilding C.	- - -	U. of Minn.	1918
Broker, Walter S.	- - -	U. of Minn.	1918
Buscher, Herbert H.	- - -	U. of Minn.	1918
Calkins, LeRoy Adelbert	- - -	U. of Minn.	1918
Cole, Wyman C. C.	- - -	U. of Minn.	1918
Eager, Ben F.	- - -	Northwestern,	1918
Fineman, Solomon	- - -	U. of Minn.	1918
Fjellman, Ruben Columbus	- - -	U. of Minn.	1918
Giere, Silas Waldemar	- - -	U. of Minn.	1918
Gilles, Floyd Lester	- - -	Syracuse U.	1917
Gillmore, Ernest George	- - -	Syracuse U.	1917
Hathaway, Stillman John	- - -	U. of Minn.	1918
Herrmann, Edgar T.	- - -	U. of Minn.	1918
Hocum, Harold Emery	- - -	U. of Ill.	1918
Holm, Hillard Herman	- - -	U. of Minn.	1918
Larson, Arnold	- - -	U. of Minn.	1918
Liek, Charles L.	- - -	U. of Minn.	1918
Little, Roy C.	- - -	U. of Minn.	1918
Logeheil, Rudolph Charles	- - -	U. of Minn.	1918
Lund, Theodore C.	- - -	U. of Minn.	1918
McGeary, George E.	- - -	U. of Minn.	1918
McKinley, John Charnley	- - -	U. of Minn.	1918
Manitoff, Anna Rachel	- - -	Boston U.	1915
Morrissey, Frank B.	- - -	U. of Minn.	1918
Mulder, John L.	- - -	U. of Minn.	1918
Nathanson, Morris	- - -	U. of Minn.	1918
Pederson, Nellie C. E.	- - -	U. of Minn.	1918
Perkins, John N.	- - -	U. of Minn.	1918
Peyton, William T.	- - -	U. of Minn.	1918
Radusch, Frieda Jeannette	- - -	U. of Minn.	1918
Roholt, Christian L.	- - -	U. of Minn.	1918
Runnerstrom, George Elmer	- - -	U. of Minn.	1918
Rutledge, Lloyd Howard	- - -	U. of Minn.	1918
Schwartz, Virgil J.	- - -	U. of Minn.	1918

Slater, Edward Phelan	- - -	U. of Minn.	1918
Stenberg, Edwin Severance	- - -	- - -	-
	- - -	Jefferson Med. College,	1917
Timm, John A.	- - -	U. of Minn.	1918
Wallinga, John Henry	- - -	U. of Minn.	1918
Weisman, Samuel A.	- - -	U. of Minn.	1918
Ylvisaker, Laurits S.	- - -	U. of Minn.	1918
Zierold, Arthur A.	- - -	U. of Minn.	1918

#### By Reciprocity.

Broders, Albert Compton	- - -	- - -	-
	- - -	Med. College of Va.	1910
Furman, Raymond Walter	- - -	Northwestern,	1909
Kistler, Alvin John	- - -	Marquette,	1915
Logan, Fred Wallace	- - -	U. of Iowa,	1901
Lyons, Michael William	- - -	- - -	-
	- - -	Milwaukee Med. College,	1911
Rawlings, Harvey Francis	- - -	- - -	-
	- - -	U. of Louisville,	1910

### NOTICE.

#### Special and Urgent Call for Foreign Service with American Red Cross.

Wanted, at once, applications from physicians over draft age; general practitioners, pediatricians, tuberculosis specialists, dentists, hospital superintendents.

Write for information to Medical Advisor, Northern Division, 202 Essex Building, Minneapolis, Minn.

### OF GENERAL INTEREST

The Owen-Dyer Bill in reference to the Medical Department of the Army as passed and approved by the President of the United States on July 9, 1918, is as follows:

"Increase in Medical Department: That the Medical Department of the Regular Army be, and is hereby, increased by one Assistant Surgeon General, for service abroad during the present war, who shall have the rank of major general, and two Assistant Surgeon Generals, who shall have the rank of brigadier general, all of whom shall be appointed from the Medical Corps of the Regular Army.

That the President may nominate and appoint in the Medical Department of the National Army, by and with the advice and consent of the Senate, from the Medical Reserve

Corps of the Regular Army not to exceed two major generals and four brigadier generals.

That the commissioned officers of the Medical Corps of the Regular Army, none of whom shall have rank above that of colonel, shall be proportionately distributed in the several grades as now provided by law.

That the commissioned officers of the Medical Reserve Corps of the Regular Army, none of whom shall have rank above that of colonel, shall be proportionately distributed in the several grades as now provided by law for the Medical Corps of the Regular Army: Provided, that nothing in this Act shall be held or construed so as to discharge any officer of the Regular Army or deprive him of a commission which he now holds therein."

Under this bill the ranks in the Medical Reserve Corps, based on the report of the Surgeon General of July 12th, are as follows:

Major Generals .....	2
Brigadier Generals .....	4
Colonels .....	675
Lieutenant Colonels .....	1,158
Majors .....	5,063
Captains and Lieutenants.....	14,374

It has been decided to postpone the joint meeting of the Sanitary Conference and the Minnesota Public Health Association until some time in the fall of the year, and not to call these meetings at the time of the annual meeting of the Minnesota State Medical Association.

Dr. Philip A. Brady of Hastings, a well known physician and surgeon died at his home July 21st. Dr. Brady was 38 years of age. He was graduated from St. Thomas College, St. Paul, later going to Jefferson College in Pennsylvania, from which he received his doctor's degree.

Dr. Axel A. Pesonen, well known practicing physician and surgeon of Duluth, succumbed July 17th to an attack of suppurative appendicitis, following an illness of six weeks. He was 28 years of age. He came to Duluth about seven years ago, but later made his home in Virginia, Minn., returning to Duluth about one year ago. He was associated in the practice of his profession with Dr. E. L. Lindgren.

Dr. Ferdinand Lessing formerly of Wabasha, Minn., passed away at his home in Philadelphia, July 10th. Funeral services were held in that city on July 12th. Dr. Lessing will be remembered by the older residents of Wabasha who knew him when he practiced there in the early eighties and prior to that time. After leaving Wabasha he practiced in Winona, later going to Philadelphia where he has lived since. Though a man of eighty-one years, the doctor continued his practice up to the time of his death. Dr. Lessing was an army surgeon in the Civil War.

Dr. Wm. Kirkpatrick returned to his home in Bellingham, Wash., early in July, after having spent nearly a year in the stricken country of Roumania in charge of one of the medical units sent out last year by the United States government to combat the scourge of typhus fever and other diseases which have ravaged Roumania. A letter from Mrs. Kirkpatrick gives an account of the difficulties the doctor encountered in getting out of that country. He was on one of several trains carrying about 1,100 Roumanian troops and physicians. They went first to Odessa and thence to Moscow, luckily getting through just before the German advance in the same direction, and the Bolshevik troops apparently did not relish the job of attacking such a large force. From Moscow the doctor went to Kola in Lapland, and thus ultimately arrived in England. He was seven weeks in reaching Lapland with the helter-skelter accommodations of a moving railway train all that time. In England he was shown many attentions by the military physician who was in charge of the British medical expedition in Roumania last year, when the two worked almost side by side. Both Dr. Kirkpatrick and his wife, who was then Dr. Addie Gilman, were formerly members of the state hospital staff of physicians in Fergus Falls, Minn.

Word comes to us that Lieut. Stanley R. Maxeiner of Minneapolis, who has been with the British Expeditionary Forces for the past year, has devised a splint for the temporary care of fractures of the humerus, the excellence of which has been attested by orders from the colonel of his division that the splint be made a part of the regular equipment and be used by all the medical officers of his division.

Dr. J. W. Andrist of Owatonna, who has been commissioned a captain in the Army Medical Corps, received word to report for active duty on July 20, at Camp Zachary Taylor, Louisville, Ky.

Dr. R. D. Hubert, St. Paul, chief city health inspector, has resigned to enter the army service. Dr. Hubert received a commission as captain in the medical corps and is now in active service at Hartford, Conn.

Dr. D. MacDonald, Minneapolis, received a commission in the Medical Reserve Corps, July 19th.

Dr. S. S. Hesselgrave, St. Paul, left for Fort Riley, Kan., August 4th.

Dr. J. A. Gates of Kenyon, Minn., received word recently that he had been appointed a captain in the Medical Reserve Corps.

Dr. Henry Herbert Warner, 161 W. Third St., St. Paul, was commissioned August 1st, by the War Department, a first lieutenant in the Medical Officers' Reserve Corps.

Dr. Edward William Gaag of Great Falls, Mont., has located in Wheaton, Minn., where he will practice his profession.

Dr. D. J. Paradine, who has been practicing medicine at Floodwood, has moved to Cloquet.

Dr. T. Kjerland of Webster, S. D., died recently at the age of 58 years. His burial took place at Northwood, Iowa.

Dr. H. G. Blanchard of Waseca has been appointed a member of the local draft board to succeed Dr. J. F. Lynn who has enlisted in the Medical Reserve Corps.

Dr. P. M. Hall of Minneapolis, assumed full control of the state sanatorium for consumptives at Walker, Minn., August 1st. He was appointed superintendent of the institution recently by the State Board of Control to succeed Dr. George W. Beach, who resigned to enter a military medical unit.

Dr. Hall has been in active charge of the sanatorium for some weeks. He has practiced medicine in Minneapolis since 1882, was a member of the first state board of medical examin-

ers, and was health commissioner in Minneapolis from 1901 to 1912.

The following Northwest men have been amongst those who have recently won commissions in the United States Army Medical Service:

Captains: J. W. Andrist, Owatonna, Minn.; A. E. Benjamin, Minneapolis; J. P. Freeman, Glenville; J. A. Gates, Kenyon, Minn.; M. M. Hursh, Grand Rapids, Minn.; Merlin C. Johnston, Aberdeen, S. D.; Max J. Kern, St. Cloud, Minn.; A. G. Moffat, Howard Lake, Minn.; W. E. Richardson, Slayton, Minn.; Karl Heinrich Schmidt, Minneapolis; Charles C. Walker, Lambertton, Minn.; James D. Weir, Beardsley, Mont.

First Lieutenants: Willard J. Fenton, Mystic, Iowa; Christian H. Herrmann, Jr., Amana, Iowa; A. L. Lee, Buffalo; George McCreight, Albert Lea, Minn.; F. B. Morrissey, St. Paul; Judson W. Myers, Sheldon, Iowa; D. E. Nelson, Brainerd, Minn.; Robert B. Schoch, St. Paul; Joseph C. Storken, Medicine Lake, Minn.

Dr. J. C. R. Charest, formerly of Okee, has located in Argyle.

Dr. H. F. Gammons arrived in Deerwood recently where he will have charge of the new tuberculosis sanatorium soon to be opened there.

Dr. B. P. Rosenberry of Winona, has been promoted to the rank of major in the Medical Corps of the United States Army. He is stationed at Camp Custer, Mich. Dr. Rosenberry enlisted in the medical corps as a first lieutenant, one year ago, and became a captain six months ago.

Dr. Charles J. McGuire for eight years a practicing physician at Altura, recently received a commission and was ordered to report for duty at the base hospital at Camp Dodge, Des Moines, Iowa.

Mobilization plans for the physicians of the country, whereby every member of the medical profession will be assigned to military or civilian duty have been in preparation for some time. The plan as announced contemplates the voluntary enrollment of every physician in a volunteer service corps under pledge by the governing body of the corps. The aim of the



plan is to provide sufficient doctors for the military program.

Physicians not assigned to military duty, would be distributed according to civilian requirements. In only exceptional cases it was emphasized would it be necessary to ask physicians to change their district of practice. While the plan as contemplated is voluntary, government medical officers did not hesitate to say that legislation providing for the drafting of members of the profession would be sought if the volunteer plan is not successful.

Dr. Roy G. Stevens of Sioux Falls, S. D., was recently ordered to report for duty at Camp Dodge, Des Moines, Iowa. Dr. Stevens was formerly associated with Dr. Moe in the Southern Minnesota Hospital at Heron Lake, Minn.

Dr. A. H. Parks, of 706 Physicians and Surgeons Bldg., Minneapolis, has received a commission as Captain in the Medical Reserve Corps and is awaiting immediate orders.

## NEW AND NON-OFFICIAL REMEDIES

**Chlorine Soda Ampules.**—Composed of a sealed glass tube stated to contain 4.8 Gm. liquid chlorine and a sealed glass tube stated to contain 21.3 Gm. monohydrated sodium carbonate and yielding, when the contents of the tube are dissolved in 1000 Cc. of water, a solution similar in composition to Neutral Solution of Chlorinated Soda—N. N. R. To prepare the solution the contents of the tube of monohydrated sodium carbonate are placed in a bottle having a capacity of about 2000 Cc. and dissolved in 1000 Cc. water. The tube containing the liquid chlorine is suspended from a rubber stopper and is inserted into the bottle and the stopper securely inserted. The large bottle (after covering with a cloth) is shaken to break the chlorine tube, and then shaken again for two minutes or longer. The solution freed from particles of glass is ready for use, or its available chlorine may previously be checked by titration. The solution so obtained is intended for the Carrel-Dakin treatment of infected wounds. Johnson and Johnson, New Brunswick, N. J. (Jour. A. M. A., July 6, 1918, p. 39).

**Dextri-Maltose No. 2, Mead's.**—A mixture containing approximately maltose, 53.1 per cent.; dextrin, 42.6 per cent., and moisture, 4.3 per cent. On the claim that maltose is more readily assimilable than other forms of sugar, Mead's dextri-maltose

No. 2 is proposed for use in the diet of adult invalids. Mead, Johnson & Co., Evansville, Ind.

**Dextri-Maltose No. 3, Mead's.**—A mixture containing approximately maltose, 52 per cent.; dextrin, 41.7 per cent.; potassium carbonate, anhydrous, 2 per cent., and moisture, 4.3 per cent. In the belief that an addition of potassium salts counteracts a tendency to constipation, it is said to be particularly adapted in the feeding of constipated infants. Mead, Johnson & Co., Evansville, Ind. (Jour. A. M. A., July 20, 1918, p. 193).

## PROPAGANDA FOR REFORM.

**Chlorine Soda Ampules.**—The A. M. A. Chemical Laboratory reports that the Chlorine Soda Ampules of Johnson and Johnson yield a solution containing the claimed amount of available chlorine if precautions are taken to prevent loss of chlorine when the solution is prepared. On the basis of the report, the Council on Pharmacy and Chemistry accepted the Chlorine Soda Ampules for New and Non-official Remedies. (Jour. A. M. A., July 6, 1917, p. 39).

**Proteal Therapy.**—Henry Smith Williams, who expounds the use of his "Proteals" for the treatment of cancer, tuberculosis and many other diseases, is better known in the journalistic world than in the field of scientific medicine. A few years ago, Dr. Williams appeared interested in the Autolysin treatment of cancer which at that time was being exploited. The present "Proteal" treatment appears to be a modification of the "Autolysin" treatment. Dr. Williams, in attempting to justify the use of his "Proteals" in tuberculosis, cancer, rheumatism, etc., takes advantage of certain investigations bearing on the non-specific reactions resulting from the parenteral injection of foreign proteins. (Jour. A. M. A., July 6, 1918, p. 58).

**Ophthalmol (Lindemann).**—The Council on Pharmacy and Chemistry publishes a report declaring Ophthalmol (Lindemann) inadmissible to New and Non-official Remedies. The preparation is advertised for the treatment of eye diseases. It is said to be an oily solution of "glandular extract of the fish *Cobitis fossilis*," but its composition is not definitely declared. The Council rejected Ophthalmol (Lindemann), (1) because the use in eye of an irritant of secret composition and of uncertain activity is unscientific and against the interest of public health; (2) because Ophthalmol is of secret composition, and (3) because no evidence has been submitted to substantiate its superiority over established methods of treatment. (Jour. A. M. A., July 6, 1918, p. 59).

**The Italian Consumption Cure.**—Daily papers have purported to give an account of a new alleged cure for pulmonary tuberculosis said to have been "discovered" by Professor Domenico LoManaco, of

Rome. The treatment is said to consist of the subcutaneous injection of sugar—the particular form of sugar not being specified. Italian medical journals and medical publications from other European countries appear to contain no reference to this latest "discovery." (Jour. A. M. A., July 13, 1918, p. 142).

**Silvol Inadmissible to N. N. R.**—The Council on Pharmacy and Chemistry reports that Silvol (Parke, Davis & Co.) is a silver protein preparation of the Argyrol type. Its physical properties are similar to those of Argyrol, and, like Argyrol, it is said to contain about 20 per cent. of silver. Like Argyrol it is non-irritant to the nasal mucosa in 10 per cent. solution. About the same claims are made for the local use of Silvol as are generally made for Argyrol, and these may be accepted. In addition, however, claims are made which are doubtful and which require substantiation. As the manufacturers have presented no evidence for their highly improbable claims, and as they have not signified any intention of making their claims agree with substantiated facts, the Council declared Silvol inadmissible to New and Non-official Remedies. (Jour. A. M. A., July 13, 1918, p. 140).

**Doan's Kidney Pills.**—A testimonial for Doan's Kidney Pills by Mr. Ford appeared in the Kankakee Daily Republican, nearly three months after he was dead and buried. The advertisement containing the testimonial said: "Follow Kankakee people's example, use Doan's Kidney Pills." (Jour. A. M. A., July 13, 1918, p. 140).

**Prescription A-2851.**—Eimer and Amend write that the reported analysis of their "rheumatism remedy," Prescription A-2581, by the Louisiana State Board of Health was incorrect in that it failed to state that 45 per cent. of it was wine of colchicum and in that it contained 9.3 per cent. and not 7.5 per cent. of potassium iodide. On the basis of the manufacturer's statement, each dose of the remedy contains 27 minims of wine of colchicum—almost a full dose. Colchicum is so uncertain that its use in products of the home remedy type should be unhesitatingly condemned. (Jour. A. M. A., June 20, 1918, p. 215).

**Vaderol.**—A rather expensively prepared advertising card, forwarded by a medical officer in France to the Surgeon General's office in Washington, read: Urinary Duets—Ancient and Recent Runnings—Cystitis, Prostatitis, Filaments—Speedy and Radical Recovery by means of the Vaderol—Used in the Urological Establishments in the Armies. The card is an interesting evidence of the attempt of a French patent medicine maker to exploit the English-speaking soldier now in France. (Jour. A. M. A., July 20, 1918, p. 215).

**Dependability of Tablets.**—There is no doubt about the convenience of tablets, but the accuracy of the dosage content is not always to be depended on. In 1914, Kebler reported the results of a far-reaching

investigation of tablet compounding in which he pointed out that tablets on the market were not as uniform or accurate as was generally believed. During the past year, the Connecticut Agricultural Experiment Station undertook the examination of tablets—proprietary and non-proprietary—taken from the stock of dispensing physicians. The variations found in weights of the tablets were strikingly similar to those reported by Kebler. Allowing a tolerance in composition of 10 per cent., one or more product of the following manufacturers were found deficient: Buffington Pharmacal Company; Daggett and Miller Company; Drug Products Company; the Harvey Company; National Drug Company; B. F. Noyes Company; Progressive Chemical Company; Tailby-Nason Company, and John Wyeth & Brother. (Jour. A. M. A., July 27, 1918, p. 300).

## REPORTS AND ANNOUNCEMENTS OF SOCIETIES

### SOUTHERN MINNESOTA MEDICAL ASSOCIATION'S SUMMER MEETING.

The summer meeting of the Association was held at Winona, June 24 and 25, 1918.

MONDAY, JUNE 24.

The banquet and social session of the Association were held at the Winona Hotel. The meeting was called to order by the President, Dr. M. S. Henderson, of Rochester, at 7 P. M.

Rev. H. J. Wharton delivered an invocation.

Mayor Julius H. Protz was introduced and delivered an address of welcome.

Music was furnished by the Winona Orchestra.

After the banquet the Association held its scientific session in the Masonic Temple.

Dr. John L. Porter, Chicago, read a paper entitled "Arthritis Deformans."

Dr. Charles H. Mayo, Rochester, read a paper entitled "Problems of Infection."

These two papers were discussed together. The discussion was opened by Dr. A. J. Gillette and continued by Drs. Edward C. Rosenow, M. S. Henderson, and A. G. Long, after which the discussion was closed by Dr. Porter.

Dr. A. F. Schmitt, of Mankato, moved that a rising vote of thanks be extended to Dr. Porter for his instructive and interesting paper, and that he be enrolled as an honorary member.

Seconded and carried.

The President announced as the Committee on Resolutions, Drs. Adair, Baker and James.

The President announced that on account of the restrictive measures of the government with reference to coal, Dr. Charles H. and Dr. William J. Mayo regreted very much that they had to call off the pro-

posed trip down the Mississippi on the steamer Minnesota, which the members and guests had looked forward to with much pleasurable anticipation.

Dr. W. F. C. Heise, Chairman of the Committee of Arrangements, announced that the Winona County Medical Society would entertain the visiting physicians and ladies at luncheon at the Arlington Club, Tuesday, at 12 o'clock M.

Dr. Leda J. Stacy, Rochester, read a paper entitled "The Treatment of Menorrhagia With Radium," which was discussed by Dr. W. E. Sistrunk, and Dr. Eugene K. Green.

Dr. R. E. Farr, Minneapolis, followed with a paper entitled "Rectal Surgery Under Local Anesthesia."

This paper was discussed by Drs. Earl R. Hare, Allan B. Stewart, and discussion closed by the author of the paper.

On motion, which was duly seconded and carried, the Association adjourned until A. M. Tuesday.

#### TUESDAY, JUNE 25. MORNING SESSION.

The Association met at 8 A. M. and was called to order by the President.

Dr. Ernest Z. Wanous, Minneapolis, read a paper entitled "The Clinical Aspect of Prostatic Hypertrophy," which was discussed by Drs. Harry A. Baker and E. P. Hawkins, after which the discussion was closed by the essayist.

Dr. Andrew J. Kaess, Fargo, N. D., read a paper entitled "Obstetric Forceps; Indications and Contra-indications."

Discussed by Drs. W. H. Condit and R. N. Andrews, after which the discussion was closed by the essayist.

Dr. D. B. Pritchard, Winona, read a paper on "Problems of the Small Hospitals," which was discussed by Drs. R. C. Hunt, A. F. Schmitt, and J. H. Beaty.

Dr. F. W. Schlutz, Minneapolis, read a paper entitled "The Relation of Food to Some Anaphylactic Phenomena."

Discussed by Drs. E. J. Huenekens, H. L. Ulrich, and discussion closed by the essayist.

Dr. O. S. Hansen, Minneapolis, read a paper entitled "The Electrocardiograph in the Diagnosis of Heart Diseases."

This paper was discussed by Dr. H. L. Ulrich, and discussion closed by the author of the paper.

President Henderson stated that many of the members were in the service; they were not paying dues, and were not expected to do so, so that the responsibility of making up the deficit rested on the shoulders of the members who were not in the service. The members of the Executive Committee had concluded to ask for an increase in dues during the period of the war to meet the expenses and to carry on the work of the Society in the same manner as in the past.

Dr. A. F. Schmitt, Chairman of the Program Committee, supplemented what President Henderson had said by saying that the expenses of managing the affairs of the Association had increased, and two years ago, when the Association increased the dues

from one dollar to two dollars, it was in debt, but had gotten out of debt. As there were so many members now in the service he thought it was up to the other members to double the dues in order to meet the financial obligations of the Association. The Program Committee had found that the expense of printing and circularizing the profession had more than doubled; the expenses of reporting the transactions had increased, and other things had increased in proportion. While he did not like to beg the members for money, he urged those present to contribute one or two dollars or more, if they saw fit, to the funds of the Association.

A recess was then taken to give the members an opportunity to contribute.

Dr. W. D. Sheldon, Rochester, read a paper entitled "Tumors of the Spinal Cord; Clinical Features and Treatment," which was discussed by Drs. A. W. Adson, E. M. Hammes, A. J. Gillette, and in closing by the essayist.

Dr. Rood Taylor, Rochester, read a paper entitled "The Relationship Between Tonsillar Infection and Recurrent Vomiting," which was illustrated by lantern slides.

Discussed by Drs. E. J. Huenekens, F. W. Schlutz, H. A. Beaudoux, C. A. Lester, W. A. Jones, W. D. Sheldon, after which the discussion was closed by the essayist.

Dr. Helen Hughes Hielscher, of Mankato, spoke of the child welfare movement, saying that it had assumed large proportions, and was one of the biggest fields in preventive medicine before the profession today. Why was it that this movement was largely in the hands of the laity today when it really belonged to the medical profession? The answer was that physicians as a body were not keeping pace with the anxiety of the mothers of the country in the welfare of their children. She hoped and urged that the medical profession would seize the opportunity to draw attention to the evil of having lay people at the head of such a movement when the medical profession should rightfully take charge of it.

Dr. F. H. Gambill, Thief River Falls, read a paper entitled "The Eskimo, Habitat, Mode of Living and Diseases," which was illustrated by numerous interesting slides.

On motion, the Association adjourned until 2 P. M.

#### AFTERNOON SESSION.

The afternoon session was a patriotic one, and was called to order at 2 P. M. by the President.

Dr. John H. Adair presented the Report of the Committee on Necrology, and the Report of the Committee on Resolutions, and moved their adoption. Seconded and carried.

These reports are as follows:

Mr. President: This Association records with solemn pride the death of its first member to make the supreme sacrifice of his life for the freedom of humanity.

Lieut. John P. Rosenwald, of Minneapolis, died in France, May 5, as the result of shrapnel wounds re-

celved while caring for the wounded under his charge in an action on the Western Front.

While his military service was comparatively brief, it was sufficient to earn for him an enviable record for fidelity to the trust imposed on him, and bravery in the face of superlative danger. He had been awarded the distinguished service cross for extraordinary heroism by General Pershing, and his promotion to a substantially higher rank was about to be made when his untimely death cut short a promising and brilliant career.

We rejoice in the fact, that in his faithful and single-minded devotion to the responsibilities devolving upon him, our brother, although young in years, upheld the time-honored traditions of the calling he professed, and we are confident that his example will be emulated by countless numbers of our members as they go forth to their posts in this, the grim tragedy of civilization. For so high is grandeur to our dust, "So near is God to man; when duty whispers low, 'thou must,' the youth replies I can."

Mr. President: Your Committee on Resolutions desires to express its appreciation of the reception and entertainment afforded us at this time by the citizens and profession of Winona, and to assure them that their efforts to make this meeting of the Southern Minnesota Medical Association a success merit and receive our sincere approbation; while to our distinguished guests, who have edified and instructed us by their presence and participation in their addresses and discussions, our thanks are most assuredly due.

By the Committee.

Mr. Pierce Butler, St. Paul, was introduced and delivered a patriotic address entitled "The War and Afterwards."

Addresses were also delivered by Major T. Casey Witherspoon, M. R. C., on "The Duty of the Surgeon in the Present Crisis;" by Major Joseph Miller, M. R. C., on "The Opportunities of the Internist in the Military Service;" by Colonel Henry Greenleaf, M. C., U. S. Army, on "Military Matters," and by President M. L. Burton, President of the University of Minnesota, on "Changes Ahead."

At the conclusion of President Burton's address, Dr. A. F. Schmitt said: I have not words at my command to express in fitting terms our appreciation of the addresses we have listened to this afternoon by the speakers who have made this patriotic session a memorable one in the history of the Association; but I desire to make two motions. First, I move that Major Joseph Miller and Major T. Casey Witherspoon be elected honorary members of the Southern Minnesota Medical Association.

Seconded and carried unanimously.

Dr. Schmitt: My second motion is this: I am sorry Mr. Pierce Butler and President Burton are not eligible for honorary membership in this Association. I know we all feel the inspiration which their presence and their addresses have given to us, and the high ideals with which we as physicians and surgeons will pursue our duties from this day on, and I

move that a rising vote of thanks be extended to Mr. Butler and President Burton for their eloquent patriotic addresses.

Seconded and carried unanimously.

The music for the patriotic session was rendered by the Winona Municipal Band.

On motion, the Association then adjourned sine die.

H. T. McGUIGAN,

Secretary.

#### STEARNS-BENTON COUNTY MEDICAL SOCIETY.

The regular meeting of the Stearns-Benton County Medical Society was held at Pellican Lake, Stearns County, Minnesota, July 26, 1918.

There was no scientific program. A thorough outing for the members, their families and friends, of boating, swimming, fishing, racing, cards and a good fish supper on the banks of Lake Pellican, were participated in by twenty-eight and all enjoyed themselves to their heart's content.

J. C. BOEHM, M. D.,

Secretary.

## CORRESPONDENCE

To the Editor of Minnesota Medicine:

Herein find abridged minutes of the last meeting of the American Medical Editors' Association held in Chicago on June 10th and 11th.

The Executive Committee desires me to particularly call your attention to the resolution unanimously passed, according full support to the Surgeon General of the Army and of the Navy and the Council on Medical Defense, and requesting that you aid by every means editorially, to bring before the profession the important needs of these departments.

The minutes of the previous meeting were read and approved. The Treasurer's report showed a cash balance of \$512.59. The Association approved the action of the Executive Committee in appropriating \$100.00 to the Periodical Publishers' Association for carrying on an educational campaign against the zone system of second-class rates.

The Association approved the propaganda carried on by the Secretary in aid of the Surgeon General's office in securing additional applicants for the Medical Reserve Corps and a letter was read from the Surgeon General expressing appreciation of the aid rendered.

Of the \$250.00 appropriated at our 1917 meeting less than \$100.00 of the amount was expended for the above purpose.

The following resolution was unanimously passed and it is earnestly hoped that every member of this Association will lend his undivided aid in its promulgation:

"Firm in our belief of winning the war in conjunction with our valiant Allies, yet fully realizing the necessity and need for an adequate medical corps both as to numbers and training, we, the Amer-



ican Medical Editors' Association in session at Chicago, Ill., June 11, 1918, Be it Resolved,

First. We pledge our renewed effort to Surgeon General Gorgas of the United States Army, and to Admiral Braisted, Surgeon General of the United States Navy, and to the Medical Section, Council of National Defense, in that our pages are open to unlimited editorial space for properly approved copy in which to bring before the medical profession of the United States the needs of these most important departments.

Second. That an Editorial War Committee be appointed by the chairman composed of H. Edwin Lewis, editor of American Medicine, New York; D. E. de M. Sajous, editor of the New York Medical Journal and the President and Secretary to prepare copy and to energetically carry on this work.

Third. That this Association contribute a sum of money in addition to the appropriation made by this society at its session, June 10, 1918, limited only to the resources of this Association, the expenditure of the amount to be decided by the Executive Committee for carrying on this propaganda of education and aid.

Fourth. That the editor of every medical journal in the United States be invited and encouraged to participate in this very necessary work.

Fifth. That copies of this resolution be sent to W. C. Gorgas, Surgeon General of the U. S. Army, to Admiral Braisted, Surgeon General of the U. S. Navy and to the Medical Council of National Defense."

Following Dr. Sajous' paper upon "Military Education in Medical Colleges and the Medical Press," a motion was introduced and carried that this Association appoint a committee to study this question and report to the President if any action was deemed necessary.

A resolution introduced by Dr. Fairchild, urging that the American Medical Editors' Association use its influence and encourage its members to support the passage of the Dyer-Owen Bill, and that a copy of the resolution be sent to Senator Owen.

A resolution was introduced and carried that the Executive Committee appropriate a sum to the Periodical Publishers' Committee through Dr. H. Edwin Lewis, chairman, to aid in educating the laity in reference to the zone system of mailing second-class matter.

The Nominating Committee composed of Dr. C. E. de M. Sajous and Dr. F. H. McMechan in their report for officers of this Association for 1918-1919, recommended that in view of the first and second Vice Presidents being in the military service, that the officers of 1917-1918 hold over until the next annual meeting.

This resolution was received and favorably acted upon.

AMERICAN MEDICAL EDITORS' ASSOCIATION,

J. MacDonald, Jr., Secretary and Treasurer.

To the Editor:

In a former letter it was stated that over 30,000 cases of venereal diseases had been reported in our army. In a recent communication from the Council of National Defense it is stated that 80,500 cases have occurred since September 21, 1917, and it is estimated that over 65,000 were contracted before entering the army. This indicates emphatically the need for effort in the civil population.

The returns from the questionnaire which we recently sent out, indicate that the medical profession in other states is co-operating splendidly in reporting cases.

With this letter and announcements in the medical and lay press, a campaign is started in Minnesota, and it is hoped that it may be as successful here as elsewhere. Every effort has been made to make the plan practical, and to require as little effort as possible from the busy practitioner. The law requires that a card be filled out and mailed in the addressed envelope to the State Board of Health. After detaching the card, the pamphlet is handed to the patient. The card bears a serial number; this number is put on the physician's case record as a means of identification. We will also supply copies of blank forms, one to advise another doctor that a patient coming to him has been under treatment. This will make it unnecessary for this patient's name being reported; and one on which may be reported delinquent or incorrigible patients to us if necessary.

The Attorney General has just approved a regulation adopted by the board, prohibiting the sale of venereal disease remedies by druggists, except upon a written prescription by a licensed practitioner. We expect to take active steps to enforce this regulation and believe it will eventually do away with counter prescribing.

Free laboratory facilities are now available for all physicians, and containers will be mailed promptly upon receipt of request. It should be stated whether tubes for Wassermann test, or slides for gonorrhoeal specimens are desired.

We hope every medical man in the state will do his part in this campaign, and will understand that we will be glad to have his suggestions, or will be glad to render any assistance to him possible.

Yours very truly,

H. G. IRVINE, M. D.,  
Director, Division of Venereal Diseases, Minnesota  
State Board of Health.

To the Editor:

I am enclosing herewith a letter to the Directors of the Minnesota Public Health Association which is self-explanatory.

It seems that there has been a great demand for public health lectures from local medical societies all over the state. I should be glad to fill engagements of this kind on any subject relating to public health or particularly any of the infectious diseases, from

diagnosis to control; on ventilation, water supplies, flies, or any other similar topic.

Co-operation between the State Board of Health, the Advisory Commission, the American Red Cross and the Minnesota Public Health Association is now firmly established and we are putting the finishing touches upon the actual working system for carrying out of co-operation in the field work upon tuberculosis.

My letter to the Directors of the Minnesota Public Health Association follows:

"After three years' leave of absence from the official work of the Minnesota Public Health Association, two and a half years of which were spent in military service in Canada, I was recalled by your Executive Committee to resume my former work as Executive Secretary of our Association July 1, 1918.

"The immense development of the Association work under the Acting Executive Secretary, since I went on leave in 1915 has developed a correspondingly immense amount of detail with which I am rapidly becoming familiar, but which nevertheless I cannot hope to grasp in full for some time to come. Also new developments already are in progress which promise to be of great advantage to our Association in its notable state-wide campaign against death and disease, but these have not yet reached a stage where a definite report to you can be made. At our annual meeting, a full statement will be presented. Also, I hope to tell you then what a great personal pleasure it is to be with you once more.

"We all hope that the most intimate touch with the Association progress will be maintained by you and by all our other directors; from our side of the work, by frequent reports of that progress and requests for advice; from your side will you not as a director, write to me your comments, your suggestions, your advice, your criticisms, and if things go well, your commendations?

"They will all be appreciated and will form a basis of a close relationship between our directors and our Association work, such as we all realize should exist, will continue to exist and will become continuously more close."

Very sincerely yours,

H. W. HILL,  
Ex. Sec., M. P. H. A.

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# PROGRESS IN MEDICINE AND SURGERY

## SECTION OF ROENTGENOLOGY.

**ROENTGENOLOGY IN WARFARE:** A timely article under this caption is presented by J. Hall Edwards of Birmingham, England, who has served as roentgenologist in the South African War as well as in the present conflict. He strongly emphasizes the importance of co-operation between the roentgenologist and the surgeon, maintaining that without this the former's efforts are vain or even harmful. The fact that some surgeons refuse to co-operate is a fruitful cause of failure and disappointment, and a detriment to the patient and the country at large.

In commenting upon this paper, Lieut. Col. Christie, U. S. A., Chief of Division of Roentgenology says, "The necessity of this harmony of effort furnishes the reason for another point insisted upon by the author—that all roentgenologists must be men with medical training. The non-medical technician cannot possibly bring to a consultation with the surgeon the experience and training necessary to give his opinions weight. The Surgeon General's office has recognized this fact and has from the beginning of the war, insisted that only officers of the Medical Reserve Corps, graduate physicians, should be assigned for duty as roentgenologists."

Relative to the localization of foreign bodies, the author is an advocate of the stereo-roentgenographic method except at the front, where time is a most important factor. An intensification of the stereoscopic effect as well as an aid to accurate localization is obtained "by the use (in addition to crossed wires) of metal rings, some of which are placed under the limb and others on the side of the limb nearest the tubes." To save time, a mark on the tube stand, establishes a constant distance of the anti-cathode from the plate, and the MacKensie-Davidson localizer is always kept fixed for this distance so that fresh measurements do not have to be made in each case. A localization table can then be constructed showing the depth of the foreign body in inches for any given shift of its shadow in millimeters.

The author finds the best method of marking the skin over the foreign body is by means of a tattoo mark with India ink.

The writer has observed that knowledge on the part of the patient that a foreign body is present in his tissues often has a more detrimental effect than the metal itself. The man either develops a train of imaginary symptoms which he attributes to the foreign body or he insists upon its removal and his convalescence is correspondingly delayed. It is important therefore that roentgenograms and reports be kept from the patients, and this rule applies as forcibly in civil life as in military practice. The custom of carrying plates to the bedside should be abolished.

After foreign bodies are "healed in," attempts at removal should be made only in exceptional instances some of which the author describes as follows:

1. A jagged piece of shell embedded in a muscle which is in constant use.

2. A piece of shell or bullet in such a position as to impede movement, or in the hands or feet and detracting from the usefulness of the limb.

In the experience of the author bullets and fragments embedded in the tissues in other positions have produced less disablement than have operations for their removal.

Apparently the British army roentgenologist experiences as much difficulty in obtaining a history of his cases as does the roentgenologist in civic hospital practice. The army form used for roentgen reports is divided in two parts, the first for a brief history of the case to be filled by the surgeon-in-charge, the second for the notes of the roentgenologist. The first is rarely utilized properly, its contents being limited to such unhelpful remarks as, "For foreign body" or "For injury to bone or fracture." The position of the wound or the existence of an exit wound and other useful facts, must be elicited from the soldier himself, or the dressings must be removed for an inspection. Many of the difficulties mentioned by this British army writer will be encountered by the American army roentgenologist, because here as in England the roentgenologist has not yet been accorded a status ranking with that of the surgeon or internist. In France, on the contrary, the opinion of the roentgenologist is received with as much respect as that of the surgeon, and the advantage is said to be very apparent in the better results obtained in the French military hospitals.

FRANK S. BISSELL.

#### HEMIPLEGIA FOLLOWING TONSILLECTOMY:

Gracey ("The Laryngoscope," January, 1917, p. 40) records the case of a male, aged nineteen, who suffered from attacks of sore throat and hoarseness. Examination showed chronic follicular tonsillitis and subacute laryngitis. The tonsils were removed under gas-ether anesthesia, the dissection method being employed. The tonsils were adherent in places. At one time the patient came out of the anaesthetic and coughed considerably. There was more hemorrhage than usual at the time, and half an hour later there was considerable venous bleeding from the right tonsillar fossa, but this was easily controlled. Two days later the patient complained of headache and on the following day he went out in a cold wind. In the evening, he had a chill and pain over the right frontal sinus (temperature 105 degrees F.). The next day, he had two rigors, each lasting ten minutes and the temperature reached 106.2 degrees F. On the following day, it was noted that there was weakness of the left side especially of the arm and leg and later there was a complete left-sided paralysis. Convulsions set in and the fever continued. Respiration developed the Cheyne-Stokes type, and death occurred ten days after operation. Unfortu-

nately a post-mortem was not obtained, but Gracey notes that lumbar puncture was always negative. He suggests that the hemiplegia was due to embolism in the motor area, probably of septic origin.

CARL L. LARSEN.

**WAR AND NIGHT BLINDNESS:** Marcel Danis of Brussels, Belgium (Amer. Jour. of Ophth., Vol. 1, No. 7; July, 1918) contributes a very instructive monograph dealing with night blindness occurring in 203 cases among 2,700 Belgian soldiers who were treated for various ocular affections.

From the point of view of refraction these 203 cases were divided as follows:

Emmetropes 66, two of which had corneal scars; hyperopes less than 1 D., 14; hyperopes 1 D. and more, 50, of whom one had corneal scars; astigmatic hyperopes, 20, one with lenticular opacities; myopes, 31 (two cases of retinitis pigmentosa); astigmatic myopes, 16; mixed astigmatism, 4.

The author classifies the cases which he personally has examined as follows:

1. Hemeralopia with retinal lesions.
2. Hemeralopias of congenital origin.
3. Optical hemeralopia (by errors of refraction uncorrected, by clouding of the media).
4. Hemeralopia without lesions (essential). Corrected errors of refraction. Emmetropia.
5. Exaggerators and simulators.

PAUL D. BERRISFORD.

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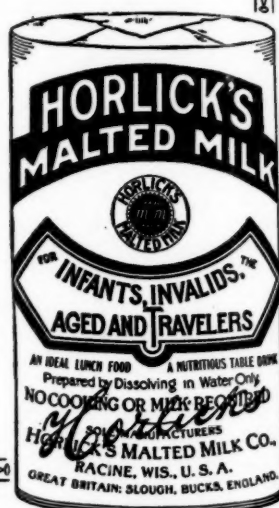
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